Province of



Saskatchewan

DEPARTMENT OF MINERAL RESOURCES

The Oil and Gas Conservation Act

R.S.S. 1953, Ch. 327, as amended

AND

REGULATIONS

THEREUNDER

O.C. 2709/56 GAZETTED JANUARY 4, 1957

HON. J. H. BROCKELBANK

J. T. CAWLEY

A. J. WILLIAMS DIRECTOR, PETROLEUM & NATURAL GAS BRANCH







REFER TO FILE

GAZETTED: March 14, 1958.

ORDER IN COUNCIL

UNDER THE OIL AND GAS CONSERVATION ACT

O.C. 388/58.

Regina, March 7, 1958.

Ap reved and Ordered.

Lieutenant Governor.

The Executive Council has had under consideration a report from the Minister of Mineral Resources, dated February 20, 1958, stating that subsection (1) of section 25 of The Oil and Gas Conservation Regulations, 1957, provides as follows:

"The drainage unit for an oil well in territory surveyed into sections in accordance with The Saskatchewan Surveys Act, shall be one legal subdivision, and elsewhere shall be an area which if so surveyed would be a legal subdivision."

The Minister further states that it is deemed to be advisable to establish an 80 acre drainage unit pattern in the area described in Schedule 1 hereto for the drilling of wells having their total depth above the top of the Silurian System, excluding from such area however the fractional sectionslying in range 34, west of the 1st meridian, as shown in the schedule under Minister's Order dated the 4th day of October, 1957, and published in The Saskatchewan Gazette on the 18th day of October, 1957, and all present and future defined pools or fields and any extension or revision from time to time thereto, and to provide that the provisions set forthin Schedule 11 hereto be established and made applicable to the drilling of and production from oil wells in the said area.

Upon consideration of the foregoing report and on the recommendation of the Minister of Mineral Resources the Executive Council advises that His Honour's Order do issue, under the authority of The Oil and Gas Conservation Act, effective the first day of March, 1958, establishing an 80 acre drainage unit pattern in the area described in Schedule 1 hereto, for the drilling of wells having their total depth above the top of the Silurian System excluding from such area however the fractional sections lying in range 34, west of the 1st meridian, as shown in the schedule under Minister's Order dated the 4th day of October, 1957, and published in The Saskatchewan Gazette on the 18th day of October, 1957, and all present and future defined pools or fields and any extension or revision from time to time thereto, and providing that the provisions set forth in Schedule 11 hereto be established and made applicable to the drilling of and production from oil wells in the said area.

H. S. Lee, Clerk Executive Council.

SCHEDULE 1

SPACING AREA "B"

Lands lying west of the 1st meridian in the Province of Saskatchewan: Range 30, townships 3 to 10 inclusive;

Range 31, townships 3 to 10 inclusive;

Range 32, townships 3 to 10 inclusive;

Range 33, townships 3 to 10 inclusive;

Range 34, townships 3 to 10 inclusive;

10141) Lands lying west of the 2nd meridian in the Province of Saskatchewan:

- Range 1, township 3 sections 13, 24, 25 and 36. townships 4 to 10 inclusive.
- Range 2, township 4 sections 13 to 36 inclusive. townships 5 to 10 inclusive.
- Range 3, township 5 sections 19 to 36 inclusive. townships 6 to 10 inclusive.
- Range 4, township 5 sections 24, 25 and 36. township 6 sections 1, 12, 13, 24, 25 and 36.

SCHEDULE 11

PROVISIONS RESPECTING SPACING AREA "B"

INTERPRETATION

l. These provisions shall be construed with reference to the terms and expressions contained in The Oil and Gas Conservation Act, and the Regulations thereunder, made by Order in Council No. 2709/56, as heretofore or hereafter.

DRAINAGE UNITS - Oil Wells

2. The drainage unit for the drilling and completion of an oil well shall be eighty (80) acres, comprising two legal subdivisions in any particular section grouped as follows:

Legal subdivision 1 and 2; 3 and 4; 5 and 6; 7 and 8; 9 and 10; 11 and 12; 13 and 14; 15 and 16.

3. The location of an oil well within a drainage unit shall be within the target area prescribed by section 5, or such location within the drainage unit as may be approved by the department after notice and an inquiry.

PRODUCTION ALLOWABLES - OIL WELLS

4. The production allowable for a drainage unit as hereby established shall be based on an area of forty (40) acres, provided that where a well is completed outside the target area prescribed by section 5, the production allowable for the drainage unit for the well shall be based upon an area considered by the Minister to be fair and equitable, having regard to all pertinent facts, but not exceeding 20 acres in the case of a well completed in the odd numbered legal subdivision.

TARGET AREA

5. The centre of the target area defined in section 26, of the Regulations under The Oil and Gas Conservation Act for any well shall be in the vertical centre line of the even numbered legal subdivision.

LOGS

- 6. If the subject well is drilled to ponetrate more than 50 feet into the Devonian System the operator will have the following logs taken as a minimum requirement:
- (1) Any resistivity log or standard electric log, excluding contact logs, from surface casing shoe, to total depth (should the condition of the drilling fluid in the well prohibit taking a satisfactory standard electric log such a log will not be deemed to meet these requirements).
- (2) Radioactivity log (natural and induced radioactivity) from top of Paleozoic to total depth.

SECIAL PROVISIONS

7. These provisions shall be subject to any special provisions, established by Minister's Order, applicable to any specified pool or field in the area.

REFER TO FILE

GAZETTED: March 14, 1958.

ORDER IN COUNCIL

UNDER THE OIL AND GAS CONSERVATION ACT

O.C. 389/58 Approved and Ordered. Regina, March 7, 1958. Lieutenant Governor.

The Executive Council has had under consideration a report from the Minister of Mineral Resources, dated February 28, 1958, stating that subsection (1) of section 25 of The Oil and Gas Conservation Regulations, 1957, provides as follows:

"The drainage unit for an oil well in territory surveyed into sections in accordance with The Saskatchewan Surveys Act, shall be one legal subdivision, and elsewhere shall be an area which if so surveyed would be a legal subdivision."

The Minister further states that it is deemed to be advisable to establish an 80 acre drainage unit pattern in the area described in Schedule 1 hereto for the drilling of wells having their total depth above the top of the Silurian System, excluding from such area, however, the fractional sections lying in range 34, west of the 1st meridian, as shown in the schedule under Minister's Order dated the 4th day of October, 1957, and published in The Saskatchewan Gazette on the 18th day of October, 1957, and all present and future defined pools or fields and any extension or revision from time to time thereto, and to provide that the provisions set forth in Schedule 11 hereto be established and made applicable to the drilling of and production from oil wells in the said area.

Upon consideration of the foregoing report and on the recommendation of the Minister of Mineral Resources, the Executive Council advises that His Honour's Order do issue, under the authority of The Oil and Gas Conservation Act, effective the first day of March, 1958, establishing an 80 acre drainage unit pattern in the area described in Schedule 1 hereto, for the drilling of wells having their total depth above the top of the Silurian System excluding from such area however the fractional sections lying in range 34, west of the 1st meridian, as shown in the schedule under Minister's Order dated the 4th day of October, 1957, and published in The Saskatchewan Gazette on the 18th day of October, 1957, and all present and future defined pools or fields and any extension or revision from time to time thereto, and providing that the provisions set forth in Schedule 11 hereto be established and made applicable to the drilling of and production from oil wells in the said area.

H. S. Lee, Clerk Executive Council.

SCHEDULE I

SPACING AREA "A"

Lands lying west of the 1st meridian in the Province of Saskatchewan:

Range 30, townships 1 and 2;

Range 31, townships 1 and 2:

Range 32, townships 1 and 2;

Range 33, townships 1 and 2;

Range 34, townships 1 and 2.

West of the 2nd meridian:

Range 1, townships 1 and 2, township 3 - sections 1 to 12 inclusive, 14 to 23 inclusive and 26 to 35 inclusive.

Range 2, townships 1, 2 and 3, township 4 - sections 1 to 12 inclusive.

.........2



- Range 3, townships 1, 2, 3 and 4, township 5, sections 1 to 18 inclusive;
- Range 4, townships 1, 2, 3 and 4, township 5 sections 1 to 23 inclusive and sections 26 to 35 inclusive township 6 sections 2 to 11 inclusive sections 14 to 23 inclusive, sections 26 to 35 inclusive. townships 7, 8, 9 and 10;
- Range 5, townships 1 to 10 inclusive;
- Range 6, townships 1 to 10 inclusive;
- Range 7, townships 1 to 10 inclusive;
- Range 8, townships 1 to 10 inclusive;
- Range 9, townships 1 to 10 inclusive;
- Range 10, townships 1 to 10 inclusive;
- Range 11, townships 1 to 10 inclusive;
- Range 12, townships 1, 2, 3 and 4.

 township 5, sections 1 to 18 inclusive sections 21 to 28

 inclusive, sections 33 to 36 inclusive.

 township 6 sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14,

 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34

 35 and 36.

 township 7 sections 1 to 4 inclusive sections 9 to 16

 inclusive and sections 21 to 36 inclusive.

 townships 8, 9, and 10;
- Mange 13, townships 1, 2, 3 and 4, township 5 sections 1 to 18 inclusive.

 township 7 sections 25 to 36 inclusive.
 townships 8, 9 and 10;
- Range 14, townships 1 to 4 inclusive.
 township 5 sections 1 to 20 inclusive and sections
 29, 30, 31 and 32.
 township 6 sections 6, 7, 18, 19, 30 and 31.
 township 7 sections 5, 6, 7, 8, 17, 18, 19, 20 and 25 to
 36 inclusive.
 townships 8, 9 and 10;
- kange 15, townships 1 to 10 inclusive.

SCHEDULE II

PROVISIONS RESPECTING SPACING AREA "A"

INTERPRETATION

1. These provisions shall be construed with reference to the terms and expressions contained in The Oil and Gas Conservation Act, and the Regulations thereunder, made by Order in Council No. 2709/56, as heretofore or hereafter.

DRAINAGE UNITS - CIL WELLS

2. The drainage unit for the drilling and completion of an oil well shall be eighty (80) acres, comprising two legal subdivisions in any particular section grouped as follows:

Legal subdivision 1 and 2; 3 and 4; 5 and 6; 7 and 8; 9 and 10; 11 and 12; 13 and 14; 15 and 16.

3. The location of an oil well within a drainage unit shall be within the target area prescribed by section 5, or such location within the drainage unit as may be approved by the department after notice and an inquiry.

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PRODUCTION ALLOWABLES - OIL WELLS

4. The production allowable for a drainage unit as hereby established shall be based on an area of forty (40) acres, provided that where a well is completed outside the target area prescribed by section 5, the production allowable for the drainage unit for the well shall be based upon an area considered by the Minister to be fair and equitable, having regard to all pertinent facts, but not exceeding 20 acres in the case of a well completed inthe even numbered legal subdivision.

TARGET AREA

5. The centre of the target area defined in section 26 of the Regulations under The Oil and Gas Conservation Act for any well shall be in the vertical centre line of the odd . numbered legal subdivision.

LOGS

- 6. If the subject well is drilled to penetrate more than 50 feet into the Devonian System the operator will have the following logs taken as a minimum requirement:
- (1) Any resistivity log or standard electric log, excluding contact logs, from surface casing shee to total depth (should the condition of the free drilling fluid in the well prohibit taking a satisfactory standard electric log such a log will not be deemed to meet these requirements).
- (2) Radioactivity log (natural and induced radioactivity) from top of Paleozoic to total depth.

SPECIAL PROVISIONS

7. These provisions shall be subject to any special provisions, established by Minister's Order, applicable to any specified pool or field in the area.



REFER TO FILE

GAZETTED: February 21, 1358.

MINISTER'S ORDER

UNIER THE OIL AND GAS CONSERVATION ACT

MRC 21/58 A1 Whereas on the 22nd day of Pecember, 1955, I, J. H. Brockelbank, Minister of Mineral Resources, did order that certain provisions governing the Limitation and Allocation of Croduction of Cil be made applicable to all wells in the province;

And whereas the aforesaid order has been amended by orders dated the 19th day of September, 1956, and the 28th day of December, 1957, respectively;

And whereas it is deemed advisable and in the public interest to make further amendments to the aforesaid provisions.

Now therefore, by virtue of the power vested in me by The Oil and Gas Conservation Act, I, J. H. Frockelbank, Minister of Mineral Resources do hereby order, effective on, from and after the first day of February, 1958, that the aforesaid provisions governing the Limitation and Allocation of Froduction of Oil be amended in the manner set forth in the Schedule hereto.

Nated at Regina, Saskatchewan, this 10th day of February, 1958.

J. H. Brockelbank, Minister of Mineral Resources.

1. Rescind subsection (21) of section 2 and substitute therefor:

2.--(21) "Water-oil ratio penalty factor" means a variable penalty factor less than unity used to decre decrease an authorized MFR or EA, whichever is employed for a well, where the water-oil ratio in respect to the said well for the last preceding month is in excess of .01999

2. Rescind subsection (1) of section 5 and substitute therefor:

5.--(1) From and after the coming into force of these provisions, no oil shall be produced from any well prior to the effective date of the applied for MPR which date will be five calendar days previous to the receipt of the MPR application by the Department provided that the allowable for any new well shall not commense prior to the date of first production.

3. Rescind subsection (3) of section 5 and substitute therefor:

.--(3) Cil may be produced from a well at the rate applied for from the effective date of the applied for MFR to the effective date of the authorized MFR as established by the department, and thereforth thenceforth at the rate determined from the authorized MFR or EA in accordance with these provisions. In addition, for testing purposes, each well will be allowed to overproduce its normal allowable to a maximum of 1,000 tarrels during the first two calendar months of production from any producing zone, without penalty.

4. Rescind subsection (1) of section 6 and substitute therefor the following:

 ℓ_{\bullet} --(1) (a) The gas oil-ratio penalty factor shall be determined in accordance with the table set out in Schedule "A" to these provisions and the water-oil ratio penalty factor shall be determined in accordance with the table set out in Schedule "B" to these provisions.

(b) The allowable of a new s well shall not be reduced by a gas-cil or water-oil ratio penalty factor until the third calendar month of production and the penalty factors for such third month will be based on production of cil, gas and water during the second calendar month of production.

5. Rescind subsection (3) of section 10 and substitute therefor:

10.--(3) Underproduction carried forward into the third month of production will be based only on production less than the normal allowable for the first two months, excluding the 1,000 barrel test allowance, and will be limited to 20% of the Monthly MFR for the second month.

Add subsection (3) after subsection (2) of section 11:

11.--(3) Overproduction carried forward into the third month of production will be any production taken in excess of (Monthly MTR for the first month) plus (1,000 barrels).



REFER TO FILE

GAZETTED: February 28, 1958.

ORDER IN COUNCIL

UNDER THE OIL AND GAS CONSERVATION ACT

O.C. 299/58. Regina, February 21, 1958.

. .

Approved and Ordered. Lieutenant Governor.

The Executive Council has had under consideration a report from the Minister of Mineral Resources, dated February 6, 1958, stating that The Oil and Gas Conservation Regulations were established by Order in Council 2709/56.

The Minister further states that it is deemed advisable and in the public interest to further amend the said regulations in the manner set out in the Schedule hereto.

Upon consideration of the foregoing report and on the recommendation of the Minister of Mineral Resources, the Executive Council advises that His Honour's Order do issue, under the authority of The Oil and Gas Conservation Act, amending The Oil and Gas Conservation Regulations aforesaid in the manner set out in the Schedule hereto.

H. S. Lee, Clerk Executive Council.

SCHEDULE

- 1. Repeal section 49 and substitute therefor the following:
- 49. Permissive Rates of Production
- (1) Oil Wells
- (a) For the purpose of this section, the date of first production shall be the date the well commences to produce new oil after recovery of all injected completion oil.
- (b) No oil well shall be allowed to produce prior to the effective date of the applied for maximum permissive rate as determined under subparagraph (l) (c) of this section. Any oil produced from a well produced prior to the said effective date may, at the Minister's discretion, be charged against the well as overproduction.
- (c) The effective date of the applied for maximum permissive rate will be the date five calender days prior to receipt of the application for a maximum permissive rate by the department provided that the allowable for any new well shall not commence previous to the date of first production. The applied for maximum permissive rate shall be effective until such time as an authorized maximum permissive rate is set by the department. The authorized maximum permissive rate may be varied from time to time on application by the owner, or by order of the Minister.
- (d) Notwithstanding section 26, subject to an application and after an inquiry the minister may approve any other method of establishing maximum permissive rates or allowables.
 - (2) Gas Wells
- (a) No gas well shall be allowed to produce other than for the purpose of determining its initial production potential as required in section 65, paragraph one, unless and until the owner has filed with the minister an application for a daily allowable for the well in the producing pool.



- (b) The date the ap lication is received by the department shall be the date on which the daily allowable requested by the owner shall become effective and such allowable shall apply until an authorized daily allowable so established may be varied from time to time on application of the owner subject to its being approved, or by order of the Minister.
- (c) The production from any gas well with a potential of 1,500,000 cubic feet per day or less in pools not controlled by a special pool allocation order shall be restricted to a maximum of 375,000 cubic feet per day, except when it is otherwise provided for by a pool order.
 - 2. Repeal section 50 and substitute therefor the following:

50. Production Testing

- (1) (a) For the purpose of taking an initial production test, each new oil well will be allowed to overproduce its normal allowable to a maximum of 1,000 barrels in the first two calendar months of production.
 - (b) Wells recompleted in a new zone shall be treated as new wells.
- (c) Measured test production shall not be prorated by shall be shown as a separate entry on the production report submitted for the well under test.
- (2) (a) Where the owner of any well wishes to make a production test, after the first two months of production, at a rate in excess of the established maximum permissive rate in respect of such well, an application to conduct the test shall be submitted, on a form prescribed and supplied by the department, outlining the details of the proposed testing program and indicating what precautions will be taken to avoid damage to the reservoir due to excessive rates of production.
- (b) No such test shall be commenced until approval thereof has been obtained from the department.
- (c) All production during such a test in excess of the daily adjusted maximum permissive rate will be classified as overproduction unless otherwise authorized by the minister.
 - 3. Amend section 75 in the following manner:
 - 1. Rescind subparagraph 75.--(1) (e) and substitute therefor:
- 75.--(1) (e) The operator of each new oil or gas well shall file with the department a new oil or gas well report on forms prescribed and supplied by the department within 12 days of the date of first production or back pressure test, whichever may apply.
 - 2. Rescind subparagraph 75.--(1) (f) and substitute therefor:
- 75.--(1) (f) The results of production test authorized under subparagraph 50 (2) shall be submitted to the department on forms prescribed and supplied by the department, upon completion of the test and in any event shall be submitted not later than the fifteenth day of the month next following completion date of the said test.





The Oil and Gas Conservation Act

R.S.S. 1953, Ch. 327, as amended

AND

REGULATIONS

THEREUNDER

O.C. 2709/56

GAZETTED JANUARY 4, 1957

HON. J. H. BROCKELBANK
MINISTER

J. T. CAWLEY
DEPUTY MINISTER

A. J. WILLIAMS
DIRECTOR, PETROLEUM & NATURAL GAS BRANCH





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The Oil and Gas Conservation Act

Being Chapter 327 of The Revised Statutes of Saskatchewan, 1953, as amended by Chapter 62 of the Statutes of 1956.

SHORT TITLE.

Short title

1. This Act may be cited as The Oil and Gas Conservation Act.

INTERPRETATION.

Interpretation

2.—(1) In this Act:

"allocated production" or "allowable production" or "allowable" 1. "allocated production" or "allowable production" or "allowable" means oil or gas authorized by the minister to be produced;

"department" 2. "department" means the Department of Mineral Resources;

"developed unit"

3. "developed unit" means a drainage unit which has a well completed therein that is capable of producing oil or gas in paying quantities;

"drainage unit"

4. "drainage unit" means the area allocated to a well for the purpose of drilling for and producing oil or gas, and includes subsurface areas bounded by the vertical planes in which the surface boundaries lie;

"field"

5. "field" means the general area underlaid by one or more pools;

"illegal gas" 6. "illegal gas" means gas produced from any well in the province in violation of this Act or any regulation or order made under the authority thereof;

"illegal oil" 7. "illegal oil" means oil produced from any well in the province in violation of this Act or any regulation or order made under the authority thereof;

"illegal product" 8. "illegal product" means any product derived in whole or in part from illegal oil or illegal gas;

"just and equitable share" 9. "just and equitable share" of a producer or a developed unit, unless otherwise agreed upon by the interested persons, means that part of the allowable production for the pool that is substantially in the same proportion that the quantity of recoverable oil and gas in each developed unit of the tract or tracts concerned in the pool bears to the recoverable oil or gas in the total developed area of the pool, subject to reasonable measures for the prevention of waste and to reasonable adjustment by reason of structural position, and that, if produced, will minimize reasonably avoidable drainage from each developed unit and will enable the producer to utilize his fair share of the reservoir energy;

"minister"

10. "minister" means the Minister of Mineral Resources;

"owner"

11. "owner" means a person who has the right to drill into a pool and produce therefrom oil or gas and to appropriate the oil or gas he produces either to himself or others or to himself and others;

"pool"

12. "pool" means an underground reservoir containing or appearing to contain an accumulation of oil or gas separated or appearing to be separated from any other such reservoir or accumulation in the general structure;

"producer"

13. "producer" means the owner of a well which is capable of producing oil or gas;

"product"

14. "product" means any commodity made from oil or gas and includes refined crude oil, crude tops, topped crude, processed crude, processed crude oil, residue from crude oil, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casinghead gasoline, natural-gas gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or by-products derived from oil or gas and blends or mixtures of two or more liquid products or by-products derived from oil or gas, whether or not mentioned herein;

"reasonable market demand" 15. "reasonable market demand" means the demand for oil or gas for reasonable current requirements and current consumption or use within and outside the province, together with such amounts as are reasonably necessary for building up or maintaining reasonable storage reserves and working stocks of oil and gas and the products thereof:

"waste"

16. "waste" means:

- (a) physical waste as that term is ordinarily understood in the oil and gas industry;
- (b) the inefficient, excessive or improper use of, or the dissipation of, reservoir energy;
- (c) the locating, spacing, drilling, equipping or operating of or producing from any well in a manner which causes, or is likely to cause, reduction in the quantity of oil or gas ultimately recoverable from any pool under prudent and proper operations and practices, or unnecessary or excessive surface loss of oil or gas;
- (d) the inefficient storage of oil or gas; or
- (e) the production of oil or gas in excess of transportation or marketing facilities or reasonable market demand.
- (2) For the purposes of this Act, in the expressions "oil and gas" and "oil or gas" the word "and" includes "or" and the word "or" includes "and". R.S.S. 1953, c. 327, s. 2; 1956, c. 62, s. 2.

PURPOSE AND APPLICATION OF ACT.

Purposes of Act

- 3. The purposes of this Act are:
 - (a) to prevent waste;
 - (b) to regulate all operations for the production of oil and gas in such manner that the greatest possible ultimate recovery thereof by prudent and proper operations and practices may be realized;
 - (c) to protect the correlative rights of each owner; and
 - (d) to enable each owner to obtain his just and equitable share of the allowable production of any pool. R.S.S. 1953, c. 327, s. 3.

Application

- 4.—(1) This Act applies to every well and structure test hole situated in the province.
- (2) This Act applies to the Crown and Her Majesty is bound thereby and has the benefit thereof. R.S.S. 1953, c. 327, s. 4; 1956, c. 62, s. 3.

PART I.

Administration.

Administration by department

- 5. This Act shall be administered by the department. R.S.S. 1953, c. 327, s. 5.
 - **6.** Repealed. 1956, c. 62, s. 4.

Jurisdiction and author-ity of minister

7. For the purpose of effectuating the purposes of this Act, the minister has jurisdiction and authority over all persons and property, public and private, and may make or cause to be made inquiries and investigations into any matter or thing in relation to the drilling for, and the resources, occurrence, production, transportation, distribution, disposition and processing of, oil or gas or products derived therefrom in the province at such places and at such times and in such manner as he may deem advisable, and may make or issue orders and take any other action he deems necessary or expedient for or incidental to the performance, execution and carrying out of any duty, function or power imposed or conferred upon him by this Act. R.S.S. 1953, c. 327, s. 7.

Oil and Gas Con-servation Board

- 8.—(1) The Lieutenant Governor in Council may establish a board, to be called The Oil and Gas Conservation Board, and herein referred to as the board, consisting of such number of members as the Lieutenant Governor in Council may deem advisable.
- (2) The Lieutenant Governor in Council appoint the members of the board and shall designate one member as chairman.
- (3) The members of the board shall hold office for such term as may be determined by the Lieutenant Governor in Council.
- (4) The Lieutenant Governor in Council shall determine the number of members of the board that shall constitute a quorum for the transaction of business.
- (5) The members of the board shall receive such remuneration as may be fixed by the Lieutenant Governor in Council.
- (6) A member of the board who has any monetary interest of any description, directly or indirectly, in any property or in any business or undertaking carried on for the purpose of searching for, winning or getting, or

for the purpose of gathering, collecting, processing, handling or distributing, any oil or gas in the province shall not act or vote as a member of the board when any question affecting such interest or in which he is interested by reason of such interest is before the board.

- (7) The minister shall appoint a secretary to the board.
- (8) The board may exercise the powers and shall perform the duties hereinafter conferred and imposed, and shall inquire into any matter referred to it by the minister and make a report to the minister thereon. R.S.S. 1953, c. 327, s. 8.

PART II.

Licences.

Prohibition against drilling without licence

- **9.**—(1) No person shall spud in or drill a well unless he is the holder of a subsisting licence to do so issued by the minister.
- (2) An application for a licence under this Part shall be submitted to the department in the form prescribed by the department. R.S.S. 1953, c. 327, s. 9.

Company must be licensed or registered 10. No licence shall be issued to a company unless it is a company licensed or registered under *The Companies Act.* R.S.S. 1953, c. 327, s. 10.

Notice to department if drilling through bed or seam of coal, etc. 11. The applicant for a licence shall notify the department if he intends to drill through a bed or seam of coal or other valuable mineral in respect of which operations have been undertaken for the working of the coal or other valuable mineral, and shall satisfy the minister that it is practicable to drill through the bed or seam without danger to the persons engaged in mining operations therein and in such a way as to permit the safe and economical mining of the coal or other valuable mineral. R.S.S. 1953, c. 327, s. 11.

Issue of licence

12. If the applicant for a licence has complied with the provisions of this Act and the regulations and orders thereunder, the minister shall grant the application and issue the licence. R.S.S. 1953, c. 327, s. 12.

Assignment of licence

13. A licence issued pursuant to this Part shall not be assigned without the written consent of the minister. R.S.S. 1953, c. 327, s. 13.

Cancellation or suspension of licence 14. If it is made to appear that a contravention of this Act, or of any regulation or order thereunder, has occurred concerning the well in respect of which the licence was issued, the minister may, after ten days' written notice to the licensee, cancel the licence or suspend it either for a definite time or indefinitely. R.S.S. 1953, c. 327, s. 14.

Hearing before board where licence cancelled or suspended **15.** A licensee whose licence has been cancelled or suspended pursuant to section 14 may apply to the minister for a hearing before the board in accordance with section 50. R.S.S. 1953, c. 327, s. 15.

Cancellation or suspension upon request **16.** The minister may cancel or suspend a licence upon the written request of the licensee. R.S.S. 1953, c. 327, s. 16.

Record of well names 17. The department shall maintain a record of official well names. R.S.S. 1953, c. 327, s. 17.

PART III.

Regulations and Orders.

Power of minister

- 18. Without restricting the generality of section 7, the minister may by order:
 - (a) regulate and make provision for, in respect of any field, pool or zone:
 - (i) the spacing of wells, the formation of drainage units and the location of target areas;
 - (ii) the maximum rate at which a well or wells may be permitted to produce;
 - (iii) the drilling, plugging and bringing into production of wells and all other operations for the production of oil or gas;
 - (iv) operations to increase ultimate recovery, including the cycling of gas, the maintenance of pressure and the introduction of gas, water or other substances into producing formations;
 - (v) the shooting, chemical treatment and fracturing of wells;

- (vi) the taking of cores and the making of special logs and the submission of core analyses to the department;
- (vii) the disposal of water, brine, sediment and other oil field wastes:
- (b) regulate, limit and allocate the production of oil and gas:
- (c) classify wells as oil or gas wells if deemed necessary for the application or enforcement of this Act:
- (d) prescribe the conditions under which drilling operations may be carried out in watercovered areas, and any special measures to be taken in such operations;
- (e) limit the amount of gas or water that may be produced with oil from any well or wells and limit the production of oil from any well or wells that produce gas or water in excess of the amount of gas or water so limited;
- (f) designate and identify any specified area as a pool or field. 1956, c. 62, s. 5.

Power of Lieutenant Governor in Council

- 19. The Lieutenant Governor in Council may make regulations and orders deemed necessary to carry out the provisions of this Act according to their true intent and, without restricting the generality of the foregoing, the Lieutenant Governor in Council may make regulations and orders:
 - (a) authorizing or requiring:
 - (i) the spacing of wells and the formation of drainage units generally;
 - (ii) the identification of ownership of oil or gas wells, producing leases, tanks, plants, structures, facilities and means for the transportation or refining of oil or gas;
 - (iii) the making and filing with the department of well logs, directional surveys and reports on well location, drilling, drilling tests and production;
 - (iv) the filing of oil or gas analyses or other information pertaining to oil or gas;

- (v) the drilling, casing, cementing, operating and plugging of wells in accordance with good practices and in such manner as to prevent the escape of oil or gas from one stratum into another, the harmful intrusion of water into an oil or gas stratum and the pollution of fresh water supplies by oil, gas or salt water, and in such manner as to prevent blowouts, cavings, seepages and fires;
- (vi) that the production from wells be separated into gaseous and liquid hydrocarbons, and that each of these be accurately measured by such means and according to such standards as may be prescribed by the minister;
- (vii) certificates of clearance showing quantity and disposition with respect to the transportation or delivery of oil, gas or any product;
- (viii) metering or other measuring of oil, gas or any product in pipe lines, gathering systems, barge terminals, loading racks, refineries or other places;
 - (ix) every person who produces, sells, purchases, acquires, stores, transports, refines or processes oil or gas to keep and maintain in the province complete and accurate records of the quantities thereof, which records shall be available for examination by the minister or any person authorized by him at all reasonable times, and requiring every such person to file with the department such reports as may be prescribed with respect to such oil or gas or any product thereof;
- (b) governing the suspension of operations and the abandonment and reconditioning of wells;
- (c) requiring and prescribing the taking and method of taking of cores and samples of any kind and their submission to the department:

- (d) prescribing the methods of operation to be observed during drilling and in the subsequent management and conduct of any well:
 - (i) for the protection of life and property;
 - (ii) for the prevention and extinguishment of fires:
 - (iii) for the prevention of the blowing out of control of wells; and
 - (iv) for the prevention of pollution of fresh water supplies:
- (e) governing the taking from time to time of the closed in pressure and capacity of gas wells:
- (f) providing for the inspection of wells, both during and after drilling, with respect to:
 - (i) matters pertaining to safe operations; and
 - (ii) matters pertaining to the general public interest, having regard to the protection of public or private property;
- (g) providing for the taking over of any well that is a menace to oil, gas or water-bearing formations or to life or property if remedial measures are considered necessary and the owner of the well fails to use such measures, and for the execution of such measures at the expense of the owner of the well;
- (h) governing the issue of licences authorizing the drilling of structure test holes and providing for the inspection and control of structure test holes and the making and submission to the department of logs, core analyses and reports;
 - (i) generally governing operations to increase ultimate recovery, including the cycling of gas, the maintenance of pressure and the introduction of gas, water or other substances into producing formations;
 - (j) authorizing and governing the shutting in and sealing of wells and the shutting down of the operation of equipment and facilities, for infraction of this Act or any regulation or order:

- (k) requiring the obtaining of licences and the furnishing of bonds deemed necessary in connection with the administration of this Act, and prescribing fees for such licences;
- (1) governing the procedure with respect to inquiries and investigations. R.S.S. 1953, c. 327, s. 19; 1956, c. 62, s. 6.

Publication and effective date of orders and regulations **20.** Every order and regulation made under this Act shall be published in *The Saskatchewan Gazette* and shall have force and effect on and after the date of such publication or on and after a date specified in the order or regulation. R.S.S. 1953, c. 327, s. 20.

Orders and regulations open to inspection 21. Every order and regulation made under this Act shall be entered in full in the records of the department and shall be open to inspection by the public at all times during office hours. R.S.S. 1953, c. 327, s. 21.

PART IV.

Oil and Gas Production.

LIMITATION AND ALLOCATION OF PRODUCTION.

Limitation of production **22.** The minister shall limit the production of oil and gas to that amount which can be produced without waste. R.S.S. 1953, c. 327, s. 22.

Allocation of production among pools

23. Where the minister limits the total amount of oil or gas which may be produced in the province he shall allocate the allowable production among the pools therein, and, where reasonable under the circumstances, shall allocate to each pool with small wells of settled production an allowable production which will prevent the general premature abandonment of the wells in the pool. R.S.S. 1953, c. 327, s. 23.

Allocation of production among wells or developed units 24. Where the minister limits the total amount of oil or gas which may be produced from any pool to an amount less than that amount which the pool could produce if no restriction were imposed, he shall allocate the allowable production among the several wells or developed units in the pool for the purpose of giving each producer the opportunity of producing or receiving his just and equitable share of the pool allowable, unless the producers have agreed upon a method for such allocation which is satisfactory to the minister. R.S.S. 1953, c. 327, s. 24.

Determination of market demand

- 25.—(1) In determining reasonable market demand for the province, the minister shall not be required to determine the reasonable market demand applicable to any single pool or field, except in relation to all other pools and fields and in relation to the demand applicable to the province.
- (2) For the purpose of subsection (1), in allocating allowables to pools and fields, the minister may consider, but shall not be bound by, nominations of purchasers to purchase from particular fields, pools or areas. R.S.S. 1953, c. 327, s. 25.

DRAINAGE UNITS.

Establishment of drainage units 26. The minister shall by order establish drainage units of uniform size and shape for a field or pool, provided that, where he deems it to be necessary by reason of differences in the character of the formation, the minister may divide a pool into zones and establish drainage units for each zone, and the drainage units in a zone may differ in size and shape from those in another zone. R.S.S. 1953, c. 327, s. 26; 1956, c. 62, s. 7.

Limitation on size and shape of drainage units 27. The size and shape of drainage units shall be such as will result in the efficient and economical development of the field or pool as a whole, and the size shall not be smaller than the maximum area that can be efficiently drained by one well. R.S.S. 1953, c. 327, s. 27; 1956, c. 62, s. 8.

Minister's order altering location for drilling

- 28.—(1) The minister may make an order permitting a well to be drilled at a location in a drainage unit other than the target area prescribed for the drainage unit.
- (2) An order under subsection (1) shall include suitable provisions to ensure that the operator or owner of the well will be prevented from obtaining any advantage such as the opportunity to produce from the drainage unit more than his just and equitable share of the allowable production for the pool. 1956, c. 62, s. 9.

Area covered by order establishing drainage units 29. An order establishing drainage units for a pool shall cover all lands determined or believed to be underlaid by the pool, and such order may be modified from time to time by the minister to include additional areas determined or believed to be underlaid by such pool, or to increase the size of drainage units in the pool or in any zone thereof, or to permit the drilling of additional wells on a reasonably uniform plan in the pool or zone. R.S.S. 1953, c. 327, s. 29.

Construction of order of minister **30.** No order of the minister shall be construed so as to require the drilling or operation of a well in any drainage unit in addition to a well which can produce such unit's just and equitable share without waste. R.S.S. 1953, c. 327, s. 30.

POOLING.

Pooling of interests in drainage

- 31.—(1) Where two or more separately owned tracts are embraced within a drainage unit, or where there are separately owned interests in all or part of a drainage unit, the owners of such tracts or interests may pool their interests for the development and operation of the unit.
- (2) In the absence of voluntary pooling the minister may, upon the application of any interested person, make an order that a hearing be held by the board.
- (2a) An application under subsection (2) shall be in writing and shall be accompanied by:
 - (a) a proposed pooling plan containing the terms and provisions that the applicant desires to have included in a pooling order;
 - (b) such number of copies of the plan as the minister may require; and
 - (c) a statement setting forth the reasons why voluntary pooling cannot be effected.
- (2b) The applicant shall also furnish the minister with such further information and material as he may require.
- (3) Upon the recommendation of the board, the minister may make an order pooling all interests within the drainage unit for the development and operation of the unit. R.S.S. 1953, c. 327, s. 31; 1956, c. 62, s. 10.

Contents of pooling order

- **32.** Every pooling order under section 31 shall provide for:
 - (a) the drilling and operation of a well in the drainage unit or, where a well has been drilled in the drainage unit before the making of the order, the operation of such well;
 - (b) the payment by the owners of the actual cost of the drilling and operation of the well and the manner in which such payment shall be made, provided that where the well has been drilled before the making of the order the board shall determine the cost or value to be attributed to the well for the purpose of the pooling order; and

(c) the allocation to each owner of his just and equitable share of the allowable production from the drainage unit. 1956, c. 62, s. 11.

Note.—Subsection (2) of section 11 of chapter 62 of the Statutes of 1956 provides that section 32 shall be deemed to have been in the form as enacted by subsection (1) of the said section 11 on and from the fourth day of April, 1952.

Recovery of costs from owner who refuses to pool **33.** Where an owner refuses to pool his interest, his portion of the costs of drilling and operation shall be recoverable only out of his share of production. R.S.S. 1953, c. 327, s. 33.

Effect of pooling order

- **34.** Where a drainage unit is covered by a pooling order:
 - (a) operations incidental to the drilling of a well in any portion of the unit shall for all purposes be deemed to be operations carried on or conducted by the several owners respectively upon their separately owned tracts in the unit;
 - (b) that portion of the allowable production allocated to each tract shall be deemed to have been produced from such tract by a well drilled thereon. R.S.S. 1953, c. 327, s. 34.

PART V.

Unit Operation.

Hearing by board and recommendation to minister

- 35.—(1) The minister upon his own motion may, and upon the application of any interested person shall, order that a hearing be held by the board to consider the need for the operation as a unit of an entire field or pool.
- (1a) An application under subsection (1) shall be in writing and shall be accompanied by:
 - (a) a proposed plan of unit operation containing the terms and provisions that the applicant desires to have included in a unit operation order; and
 - (b) such number of copies of the plan as the minister may require.

- (1b) The applicant shall also furnish the minister with such further information and material as he may require.
 - (2) If the board finds that:
 - (a) the operation of a field or pool or a portion thereof as a unit is reasonably necessary to prevent waste, to increase substantially the recovery of oil or gas and to protect correlative rights; and
 - (b) the value of the estimated additional recovery of oil or gas resulting from such operation will exceed the estimated additional cost, if any, incidental to the conduct of such operation; and
- (c) such operation will result in general advantage to the owners of the oil and gas rights within such field or pool or portion thereof; it may recommend to the minister that the field or pool or portion thereof be operated as a unit. R.S.S. 1953, c. 327, s. 35; 1956, c. 62, s. 12.

Order of Lieutenant Governor in Council for unit operation

- **36.**—(1) Upon the recommendation of the minister after the hearing, the Lieutenant Governor in Council may order that the field or pool or portion thereof be operated as a unit.
- (2) An order under subsection (1) shall specify the date on which it shall come into force and shall include:
 - (a) a description of the area embraced by the order, herein referred to as the unit area;
 - (b) a statement of the nature of the operation contemplated;
 - (c) an allocation among the separately owned tracts in the unit area of all the oil and gas produced and not required in the conduct of such operation or unavoidably lost, such allocation to be based proportionately on the contributions, other than physical equipment, made by the owners of the separately owned tracts to the unit operation;
 - (d) a provision for the credits and charges to be given or made in the adjustment among the owners of the separately owned tracts in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operation by such owners;

- (e) a provision for the net amount to be charged against the owner of each separately owned tract, which amount shall be considered to be the portion of the expenses of unit operation chargeable against such tract;
- (f) unless otherwise provided, a provision that the expenses of unit operation, including capital investments, shall be charged to the separately owned tracts in the same proportions that such tracts share in the unit production;
- (g) a provision appointing an operating committee composed of the persons primarily liable for the payment of the expenses of unit operation, or their representatives, which committee shall, within the time specified in the order, appoint a person to be known as the operator who shall under the direction and supervision of the committee be responsible for the management and conduct of the unit operation;
- (h) a provision specifying the method of voting upon any motion before the operating committee and the majority in number of votes necessary to carry a motion;
 - (i) a provision specifying the manner in which and the circumstances under which the unit operation shall terminate;
 - (j) such further provisions, terms and conditions as may be considered necessary to provide for the proper operation of the unit area so as to prevent waste, obtain the greatest possible recovery of oil and gas under prudent and proper operations and practices and protect the interests of the respective owners of the oil and gas rights within the unit area.
- (3) In a vote upon a motion before the operating committee appointed pursuant to an order under this section each vote shall have a value corresponding to the percentage of the expense of unit operation borne by the person voting or his principal.
- (4) If the operating committee fails to appoint the operator within the time specified in an order under this section the minister shall appoint the operator. R.S.S. 1953, c. 327, s. 36.

Payment of expenses of unit operation

- 37.—(1) The expenses chargeable to a tract shall be paid by the person who in the absence of unit operation would be responsible for the expenses of developing and operating such tract.
- (2) If the person so charged fails to pay the expenses, resort may be had to interests, herein called additional royalty interests and which are exclusive of a one-eighth (1/8) royalty interest and that would not be otherwise chargeable with such expenses, such as oil payments, over-riding royalties or other royalties and payments to be paid out of or calculated on the amount of production.
- (3) The owner of any such additional royalty interests who pays any part of the expenses required by subsection (1) to be paid by the person who in the absence of unit operation would be responsible for the payment of the expense of developing and operating the tract may recover the amount paid as a debt due to him by that person. R.S.S. 1953, c. 327, s. 37.

Property held by operator as trustee 38. All property acquired by the operator for the purpose of conducting the unit operation shall be held by him as trustee and agent for and on behalf of the owners of the working interests as such interests may appear under the unit operation plan, and the order providing for unit operation shall be construed as an operating arrangement and shall not be construed as affecting or transferring title to such property or entitling an owner of a separately owned tract to an undivided interest in all tracts included in the unit area. R.S.S. 1953, c. 327, s. 38.

Powers and duties of operator

- **39.**—(1) The operator shall exercise generally all the powers incidental to the proper conduct and management of the unit operation.
- (2) The operator may contract and may sue and be sued in his own name with respect to the duties, functions and powers imposed or conferred upon him by or pursuant to this Act. R.S.S. 1953, c. 327, s. 39.

Operations not in accordance with unit operation order prohibited **40.** From and after the date on which a unit operation order comes into force, and while the order remains in force, no person shall carry on any operations within the unit area therein described for the purpose of drilling for or producing oil or gas except in accordance with the provisions of such order. R.S.S. 1953, c. 327, s. 40.

Rehearing by board

- **41.**—(1) An order under section 36 may provide for a rehearing by the board upon the application of any interested party on or after a future date specified in the order.
- (2) Upon the recommendation of the minister following such rehearing, the Lieutenant Governor in Council may amend or revise a unit operation order in order to supply any deficiency therein or to meet changing conditions, and may alter or revoke any provision therein which is deemed to be unfair or inequitable and may add to the unit area therein described any area which the minister believes to be underlaid by the pool or one of the pools underlying the unit area. R.S.S. 1953, c. 327, s. 41.

Unit area may include previously established unit area

- **42.**—(1) An order under section 36 may provide that the unit area established thereby shall include a unit area established by a previous order.
- (2) Such order, in providing for allocation of unit production from the unit area, shall first treat the previously established unit area as a single tract, and the portion of unit production allocated to the previously established unit area shall then be allocated among the separately owned tracts included in the previously established unit area in the same proportions as those specified in the previous order. R.S.S. 1953, c. 327, s. 42.

Effect of unit operation order 43. The portion of unit production allocated to a separately owned tract shall for all purposes be deemed to have been actually produced from such tract, and operations conducted pursuant to a unit operation order shall for all purposes be deemed to be operations carried on or conducted for the production of oil and gas from each separately owned tract in the unit area in the fulfilment of all the express or implied obligations of the owner of such tract or of a producer under each lease and any contract applicable thereto in so far as the same relates to the field, pool or portion thereof covered by such order. R.S.S. 1953, c. 327, s. 43.

Further powers of

44. The Lieutenant Governor in Council may confer upon and vest in the minister any power deemed necessary or advisable to enable him to carry out the provisions of any unit operation order. R.S.S. 1953, c. 327, s. 44.

PART VI.

Practice and Procedure Relating to Hearings.

Power to make rules and regulations **45.** The Lieutenant Governor in Council may prescribe rules and regulations governing the practice and procedure with respect to hearings. R.S.S. 1953, c. 327, s. 45.

Conduct of hearings

- **46.**—(1) All hearings held under the authority of this Act shall be conducted by the board upon the request of the minister.
- (2) Such hearings shall be open to the public and all persons interested may be heard.
- (3) The board may, if it deems it necessary to do so, adjourn a hearing from time to time. R.S.S. 1953, c. 327, s. 46.

Authority of one member to act and report 47. The board or the chairman may authorize any one of the members to report to the board upon any question or matter referred to it by the minister, and such member shall, when so authorized, have all the powers of the board for the purpose of taking evidence or acquiring the necessary information for the purpose of such report, and, upon such report being made to the board, it may be adopted as the report of the board. R.S.S. 1953, c. 327, s. 47.

Notice of hearing

48. Notice of a hearing shall be given to the applicant, if any, by registered mail and published in one issue of the *Gazette* and in one issue of a newspaper having a general circulation in the district in which the field or pool to which the hearing relates is situated at least ten days prior to the date set for the hearing. R.S.S. 1953, c. 327, s. 48.

Hearing upon request of minister or interested person

- 49.—(1) The minister may of his own motion request a hearing and, upon the application in writing of any interested person, he shall, unless he considers the application to be frivolous or vexatious, order the board to hold a hearing with respect to any matter.
- (2) An applicant under subsection (1) shall furnish the minister with such data, information and material as he may require. 1956, c. 62, s. 13.

Hearing of complaint against order of minister **50.**—(1) Any person affected by an order made by the minister without a recommendation by the board pursuant to a hearing or without a hearing by the board in respect of the matter to which the order relates may apply to the minister for a hearing.

- (2) An application under subsection (1) shall set forth the matters complained against and the reasons for the complaint.
- (3) If the minister does not amend or rescind the order complained against, he shall refer the application to the board for a hearing, and the board shall after the hearing make such recommendations to the minister as it deems fit.
- (4) Notwithstanding anything contained in this section, where the minister is of the opinion that the application is frivolous or vexatious, he may dismiss the application. R.S.S. 1953, c. 327, s. 50; 1956, c. 62, s. 14.

Powers of board respecting investigations and inquiries

- **51.**—(1) The board or any person authorized by it may collect data, make inspections, studies and investigations, examine properties, titles, leases, papers, books and records and examine, check, test and gauge wells.
- (2) The board or any person authorized by it to make an inquiry or investigation pursuant to any of the provisions of this Act shall, for the purpose of such investigation or inquiry, have all the powers conferred or which may be conferred upon commissioners under *The Public Inquiries Act.* R.S.S. 1953, c. 327, s. 51.

PART VII.

Miscellaneous.

Plans for certain operations require approval of minister

52.—(1) Any plan for:

- (a) repressuring, cycling or pressure maintenance in any field or pool;
- (b) the processing, storage or disposal of gas; or
- (c) the disposal of water in any field or pool; shall be submitted to the department before it is proceeded with.
- (2) No such plan shall be proceeded with without the approval of the minister. R.S.S. 1953, c. 327, s. 52.

Address for service **53.**—(1) Every person who is the owner of a well or who is a licensee or a permittee under this Act shall register with the department an address in the province for service upon him of any notice or order given or made pursuant to this Act.

(2) Every owner of a well, licensee or permittee who is not a resident of the province shall have an agent in the province and shall register with the department the agent's name and address in the province. R.S.S. 1953, c. 327, s. 53.

PART VIII.

Prohibitions, Offences and Penalties.

Waste prohibited

54. Waste is prohibited and every person who commits waste contravenes this section. R.S.S. 1953, c. 327, s. 54.

Permit required to use gas for certain purposes

- **55.**—(1) No gas produced shall be used, consumed or otherwise disposed of in the province until a permit authorizing such use, consumption or disposition is granted by the minister.
- (2) An application for a permit authorizing the use, consumption or disposition of gas shall be accompanied by evidence that such use, consumption or disposition is for a beneficial purpose and in the public interest.
 - (3) A permit granted under this section shall:
 - (a) authorize the use, consumption or disposition of the gas for the purpose or purposes specified in the permit; and
 - (b) designate the period for which the permit is granted;

and may be made subject to such other terms and conditions as the minister may specify therein.

(4) The holder of a permit shall not assign, transfer or otherwise dispose of any right, title or interest, or portion thereof, granted by the permit without the consent in writing of the minister. R.S.S. 1953, c. 327, s. 55.

Export of gas without permit prohibited

56. The export from the province of gas is prohibited unless a permit authorizing such export is granted by the minister. R.S.S. 1953, c. 327, s. 56.

Sale, etc., of illegal oil or gas prohibited **57.** The sale, purchase, acquisition, transportation, processing or handling of illegal oil or illegal gas produced from any well or of any product derived from such oil or gas is prohibited. R.S.S. 1953, c. 327, s. 57.

Forfeiture of illegal oil and gas **58.** All illegal oil, illegal gas and illegal products shall be forfeited to the Crown in right of Saskatchewan. R.S.S. 1953, c. 327, s. 58.

Penalties for contravention of Act or regulations, etc.

59. Every person who:

- (a) contravenes, directly or indirectly, any provision of this Act or of any regulation or order made thereunder; or
- (b) either alone or in conjunction with others, causes any person to contravene, directly or indirectly, any provision of this Act or of any regulation or order made thereunder; or
- (c) instructs, orders or directs any person to contravene, directly or indirectly, any provision of this Act or of any regulation or order made thereunder;

is guilty of an offence and liable on summary conviction to a fine not exceeding \$10,000 and in the case of a continuing offence to a further fine not exceeding \$10,000 for each day during which the offence continues. R.S.S. 1953, c. 327, s. 59.

False statements, omissions, etc.

60. Every person who:

- (a) wilfully makes or causes to be made any false entry or statement in any report, record, account or memorandum required by this Act or any regulation or order made thereunder; or
- (b) wilfully omits or causes to be omitted full, true and correct entries from any report, record, account or memorandum required by this Act or any regulation or order made thereunder; or
- (c) wilfully destroys, mutilates, alters, falsifies or removes from the province any report, record, account or memorandum required by this Act or any regulation or order made thereunder, or wilfully causes the same to be so destroyed, mutilated, altered, falsified or removed from the province;

is guilty of an offence and liable on summary conviction to a fine not exceeding \$5,000 or to imprisonment for a term not exceeding six months, or to both such fine and imprisonment, and in the case of a corporation to a fine not exceeding \$10,000. R.S.S. 1953, c. 327, s. 60.

Obstruction of minister, etc., in exercise of powers

61. Every person who:

- (a) obstructs, hinders or interferes with the minister or any person authorized by him in the exercise of any of the powers conferred by or pursuant to this Act; or
- (b) without reasonable excuse fails to assist the minister or any such person when called upon by him to assist in the exercise of any of such powers;

is guilty of an offence and liable on summary conviction to a fine of not less than \$10 nor more than \$200. R.S.S. 1953, c. 327, s. 61.

Prosecution does not bar action for damages **62.** A prosecution under this Act shall not deprive any person suffering damage or injury of any cause of action he may have. R.S.S. 1953, c. 327, s. 62.

Action for injunction

63. Notwithstanding any prosecution under this Act, the minister may commence and maintain an action to enjoin the committing of waste or the violating of any order or regulation made under this Act. R.S.S. 1953, c. 327, s. 63.

Effect of payment of penalty and of forfeiture

64. The payment of a penalty shall not operate to legalize any oil, gas or product involved in the violation in respect of which the penalty is imposed; and the payment of a penalty or the forfeiture of any oil, gas or product shall not relieve a person from liability to any other person for damages arising out of the violation in respect of which the penalty is imposed or the forfeiture is incurred. R.S.S. 1953, c. 327, s. 64.

Remedies for enforcement of regulation or order 65. Where the minister has more than one remedy for the enforcement of any regulation or order or for the payment of any money payable pursuant to any regulation or order made under this Act, the minister may resort to any or all such remedies from time to time as he may deem proper, either concurrently or successively, until such time as the regulation or order has been complied with or the money payable thereunder together with all costs and expenses has been fully paid and satisfied. R.S.S. 1953, c. 327, s. 65.

REGULATIONS UNDER THE OIL AND GAS CONSERVATION ACT

Published in The Saskatchewan Gazette, dated Friday, January 4, 1957; Volume 53, No. 1; Pages 3 to 27.

O. C. 2709/56.

Regina, December 28, 1956.

Approved and Ordered.

Lieutenant Governor.

The Executive Council has had under consideration a report from the Minister of Mineral Resources, dated December 28, 1956, stating:

- (1) That by Order in Council No. 304/53 certain regulations, known as The Oil and Gas Regulations, were made under the authority of The Oil and Gas Conservation Act and that the said regulations were amended by Orders in Council Nos. 1446/53, 2638/53, 1588/54, 1985/54, 126/55, 498/55, 2057/55, 173/56, 823/56;
- (2) That by section 19 of The Oil and Gas Conservation Act, 1952, the Lieutenant Governor in Council is given authority from time to time to make regulations respecting drilling operations and management of all oil and gas wells in the Province of Saskatchewan;
- (3) That it is considered to be advisable and in the public interest to repeal the said regulations made by Order in Council 304/53 as amended and to substitute therefor regulations set forth in the schedule hereto as regulations under The Oil and Gas Conservation Act.

Upon consideration of the foregoing report and on the recommendation of the Minister of Mineral Resources, the Executive Council advises that His Honour's Order do issue, repealing the said regulations made by Order in Council 304/53 as amended, and approving and making the regulations set forth in the schedule hereto as regulations under The Oil and Gas Conservation Act.

H. S. Lee, Clerk of the Executive Council.

REGULATIONS UNDER THE OIL AND GAS CONSERVATION ACT

PART I

INTERPRETATION

- 1. These regulations may be cited as The Oil and Gas Conservation Regulations, 1957.
- 2. Subject to section 3 these regulations shall be construed with reference to the terms and interpretation of The Oil and Gas Conservation Act.
 - 3. In these regulations, unless the context otherwise requires, the expression:
 - (1) "Act" means The Oil and Gas Conservation Act.
 - (2) "Approved" means approved by the minister.
 - (3) "Barrel" means 35 standard gailons (Weights and Measures Act, Canada).
- (4) "Battery" means common storage facilities receiving prorated production from a well or wells.
- (5) "Blow-out" means an unintentional and uncontrolled escape of fluid, including gas, from a well.

- (6) "Blow-out Preventer" means a casing head control fitted with special gates, rams, or rubber sleeves, which can be closed around the drill pipe, and which completely close the top of the casing if the pipe is withdrawn.
- (7) "Capacity of a Well" means the ability of a well to produce as ascertained and determined by the minister pursuant to regulations or orders.
- (8) "Casinghead Gas" means any gas or vapour, or both gas and vapour, indigenous to an oil stratum and produced from such stratum with oil.
- (9) "Casing Pressure" means pressure in the annulus between tubing and casing measured at the casinghead.
- (10) "Condensate" means hydrocarbons existing in the gaseous state in the reservoir which condense to a liquid at pressures and temperatures below those of reservoir conditions.
- (11) "Crude, Crude Oil, or Oil" means all hydrocarbons, regardless of gravity, which are produced from the well in liquid form by ordinary production methods.
- (12) "Cubic Foot of Gas" means the volume of gas contained in one cubic foot of space at a standard pressure base of 14.65 pounds per square inch absolute and a standard temperature base of 60° F.
- (13) "Day" means a period of 24 consecutive hours from 7.00 a.m. one day to 7.00 a.m. the following day and daily shall have a corresponding meaning.
- (14) "Flow Line" means a pipe line used for the transportation or conduct of oil or gas from the well-head to a separator, tank or tank battery.
- (15) "Gas" means all natural gas both before and after it has been subject to absorption, purification, scrubbing or other treatment or process, and includes all other fluid hydrocarbons not defined as oil in subsection (11).
- (16) "Gas-Oil Ratio" means the number of standard cubic feet of gas produced per barrel of oil.
 - (17) "Gas Well" means:
 - (a) a well that is capable of producing gas not associated with crude oil at the time of production, or
 - (b) a well that is capable of producing more than 20,000 cubic feet of natural gas to each barrel of crude oil from the same producing horizon, or
 - (c) the part of a well wherein the gas-producing stratum has been successfully segregated from the oil, and the gas is produced through a bradenhead and the oil through the inside of another string or casing or tubing, or
 - (d) any well classified as a gas well by the minister for any reason.
- (18) "Group" means two or more wells producing into individual storage facilities and reported, after prior approval from the department, on a single production and disposition report.
- (19) "Nomination" means a statement made by a purchaser indicating the amount of oil or gas he has a definite and bona fide need to purchase during a given period.
- (20) "Oil Well" means any well capable of producing oil and which is not a gas well as defined under subsection (17).
 - (21) "Operator" means:
 - (a) in respect of any drilling operations carried on for the purpose of drilling a well; every person who has the right as lessee, sub-lessee, assignee, or owner to carry on the drilling operations, and every person who has the control or management of these operations; or
 - (b) in respect of any well; every person who has the right as lessee, sub-lessee, assignee, or owner to the production from the well, and every person who has the control and management thereof; or

- (c) every contractor who engages in any operations carried on for the purpose of drilling a well or for the purpose of re-conditioning or abandoning a well, or who contracts for the carrying out of any such operations.
- (22) "Person" means any natural or artificial person and includes any body corporate and politic or party and the heirs, executors, administrators or other legal representatives of such person to whom the context can apply according to law.
- (23) "Pipe Line" means any pipe or any system or arrangement of pipes, within the province, by which oil, gas or any other fluid incidental to the production thereof, is conveyed from any well-head or other place at which it is produced, to any other place, or from any place where it is stored, processed or treated, to any other place, and includes all property of any kind used for the purpose of, or in connection with, or incidental to, the operation of a pipe line in the gathering, transporting, handling and delivery of oil, gas, or any other fluid incidental to the production thereof, but does not include any pipe or any system or arrangement of pipes which constitutes a distribution system and a public utility for the distribution of gas to ultimate consumers.
- (24) "Separator" means an apparatus for separating, at the surface, liquid and gas as they are produced from a well.
- (25) "Structure Test Hole" means any hole of diameter less than 6 inches drilled to a point below the drift for the purpose of obtaining geological and structural information, but excluding those holes drilled for seismic testing. The limiting depth of a structure test hole shall be 1,000 feet or the base of the Second White Specks where that horizon lies below 1,000 feet.
- (26) "Treater" means an apparatus for separating at the surface, oil, gas and water as they are produced from the well.
- (27) "Transporter" means any person who transports oil or gas produced from any field or pool to a point outside the field or to any purchaser within a field or pool.
- (28) "Water Covered Area" means any area covered by flowing or standing water, to which the public has access, or in which the public has an interest.
- (29) "Well" means any orifice in the ground, excluding seismic shot holes and structure test holes, made or being made by drilling, boring, or in any other manner, from which orifice any oil, gas, or product thereof, is obtained or obtainable, or which is being so made for the purpose of obtaining any oil or gas, or which is incidental to the production thereof, or for the purpose of underground storage of oil, gas or products thereof, and includes any opening in the ground made or being made by drilling or boring for informational purposes as may be required under the Subsurface Mineral Regulations.
- (30) "Zone" means any approved interval, definable with respect to a geological formation or unit.

PART II

GENERAL

- 4. These regulations shall be subject to all orders and regulations made by the minister under the authority of section 18 of the Act.
 - 5. Address for Service
- (1) Every owner shall file with the department his address for service in Saskatchewan within 15 days after he acquires his right of ownership. If the date of ownership commenced before these regulations come into force then the owner shall file the said notice within 15 days after the effective date hereof.
- (2) The department shall keep a register of owners, which register shall contain the name and address of the owner, the date upon which he became owner, and the date he ceased to be owner.

- (3) Every owner, if he has a change of address, shall file it with the department within 15 days after such change.
- (4) The said register shall be accessible to the public during office hours of the department.

6. Service of Notices

- (1) Where immediate remedial or other action is deemed advisable by the minister, service of any notice or order upon the owner, will be made in the most expeditious manner possible at his or at his agent's registered address for service. If service is by mail, it will be effective upon the expiration of forty-eight hours, exclusive of Sundays and statutory holidays, from the date of mailing of the notice or order.
- (2) Where any person has failed to register an address for service or register an address of an agent, service will be made upon such person by posting the order or notice on the bulletin board in the general office of the department to which the public has access, and service will be effective after a period of forty-eight hours, exclusive of Sundays and statutory holidays, after the time of posting.

7. Notification of Fires, Breaks, Leaks or Blowouts

- (1) The operator of any oil or gas well, pipe line, receiving tank, storage tank, or receiving or storage receptacle into which crude oil is produced, received or stored, or through which oil is piped or transferred, shall immediately notify the minister by letter giving a complete report concerning:
 - (a) all fires which occur at such oil or gas wells, or oil or gas tanks owned, operated or controlled by him or on his property;
 - (b) all tanks or receptacles struck by lightning;
 - (c) any other fire or blowout of a well that wastes oil or gas;
 - (d) any breaks or leaks in any tanks, receptacles or pipe lines from which loss of oil or gas has occurred, except in the case of oil where the estimated oil loss is less than 50 barrels in the aggregate.
- (2) Each report submitted pursuant to the provisions of subsection (1) of this section shall set forth:
 - (a) the location of the well, tank, receptacle, or line-break, by legal subdivision, section, township, range or any other means available, in order that the exact location thereof may be readily established;
 - (b) the steps taken, in progress, or purposed to remedy the situation reported; and
 - (c) the estimated quantity of oil or gas lost, destroyed, or permitted to escape, except that in the case of oil where the estimated oil loss is less than fifty barrels in the aggregate.

8. Liquid Petroleum Gases

The minister may order that a test be made of the content of any gas, and if a product is shown to be present in a quantity which, in the opinion of the minister, economically justifies extraction, he may require that the product be separated, conserved, and utilized.

9. Notification of Oil and Gas Discoveries

If the owner encounters significant quantities of oil, gas or water in a wildcat well, he shall notify the minister by the most expeditious method of the character and quantity thereof.

10. Identification of Wells and Batteries

- (1) The owner shall mark each derrick, well or battery with a sign on which is printed, in reasonably large and easily discernible letters, the name of the owner, the name of the well, and the legal description of the well location.
- (2) The owner shall post a sign, similar to the sign referred to in subsection (1), at the intersection of the municipal road and lease roadway leading into the well. If the lease roadway intersects a highway then the sign shall be placed two feet away from and facing the highway on the lease roadway leading into the well. The owner shall keep the sign posted and the lettering clear.

11. Timber Protection

An operator shall do no unnecessary damage to timber, and shall observe and comply with all the provisions of The Forest Act and the regulations made thereunder.

12. Access to Well and Plant Records

- (1) At any reasonable time, the minister and every person authorized by him shall:
 - (a) have access to any well, equipment, plant, and records;
 - (b) be entitled to enter upon and inspect any well or any place at which oil or gas is refined, handled, processed, or treated, or any place used or occupied in connection with a well or with a place at which oil or gas is refined, handled, processed, or treated;
 - (c) be entitled to inspect all books, documents, records, plant, and equipment pertaining to any such well or place;

- (d) be entitled, after having notified the operator in sufficient time to enable him to have a representative present, to take samples or particulars or to carry out any tests or examinations desired in accordance with good field practice.
- (2) Every person authorized by the minister to exercise any of the powers conferred upon him pursuant to subsection (1) of this section shall produce upon request his certificate of authority from the minister at any time during which he is exercising any of such powers.

13. Enforcement of Regulations and Orders

- (1) Where, in the opinion of the minister, any well is a menace to oil, gas or water-bearing formations, or to life or property, and if remedial measures are considered necessary, should the owner of the well fail to use such measures as may be directed by the minister, the minister shall, at the expense of the owner, take such steps and employ such persons as he considers necessary to carry out the remedial measures, and, for that purpose:
 - (a) may enter upon, seize and take possession of any such well, together with the whole or part of the moveable and immoveable property in, on, or about the well, or used in connection therewith or appertaining thereto; and
 - (b) may take over the management and control thereof for the time necessary to carry out the remedial measures.
- (2) In cases where the minister or his authorized representative, is satisfied that any well, drilling, or service rig is being operated in contravention of any provision of the Act, regulations thereunder, Minister's Approvals or Orders, or any other Act, he may, after giving such notice as he deems reasonable, shut down or cause to be shut down any well until such time as he may order to the contrary.

14. Provisions for Seals

- (1) The minister, or his authorized representative, whenever he considers it necessary to do so, may seal or cause to be sealed with a metallic seal, or seals, any or all valves or meters installed at a well or wells, or on pipe lines, tanks or other receptacles used for the storage or transportation of oil or other liquid produced or withdrawn from the well or wells.
- (2) The person in charge of operations at the well, and the operator's agent, shall be notified in writing in all cases, other than battery proration tests and infractions of salt water disposal, or by the minister or his duly authorized agent of the affixing of the seal or seals, and the reasons therefor.
- (3) Any seal or seals so affixed shall not be removed or tampered with except in case of an emergency, without authority in writing from the minister or his duly authorized representative.

15. Inquiries

(1) The minister may, upon the application of an interested person or upon his own motion, if he deems it advisable or necessary, hold or cause to be held an inquiry, open to the public, at such time and place as he may designate, for the purpose of an inquiry or investigation into any matter or thing for or incidental to the performance, execution and carrying out of any duties or function or power imposed or conferred upon him by the Act or the regulations or orders issued pursuant thereto.

- (2) An application for an inquiry and all written submissions in respect to any matter or thing to be inquired into or investigated at the inquiry shall be addressed to the Director of Petroleum and Natural Gas in the department.
- (3) Notice of an inquiry shall be published in one issue of *The Saskatchewan Gazette* at least ten days prior to the date of the inquiry and in such additional publications or newspapers as the Director of Petroleum and Natural Gas deems advisable.
- (4) Any person interested in any matter or thing which is to be inquired into or investigated at an inquiry shall, if possible, make his submission in writing with his signature affixed thereto and deliver to the department at least two days prior to the commencement of the inquiry, or to the chairman at the inquiry, the original signed submission and at least four additional copies thereof.
- (5) Any owner or operator affected by any matter or thing which is to be inquired into or investigated at an inquiry may obtain, up to and including the date of the hearing, copies of any submissions made from the persons making it.
- (6) Any person making a submission at an inquiry shall, if possible, be represented at the inquiry by himself in person or by any other person qualified to explain the contents of the submission and to answer questions by the chairman or any other person present at the inquiry in respect to the submission.
- (7) The chairman of the inquiry shall be an official of the Petroleum and Natural Gas Branch of the department and he shall have such powers as may be necessary to properly conduct the inquiry and to control and direct the procedure thereof.
- (8) The chairman may, if he deems it advisable, adjourn an inquiry from time to time.
- (9) Within ten days after the date of the inquiry, the chairman shall make a report thereof and a recommendation in respect thereto to the minister.
- (10) The minister, after considering the recommendation and report of the chairman, may make or issue such orders, approvals, recommendations or authorizations as he may deem advisable or take such other action as he may deem necessary.

16. Hearings

- (1) Application for a hearing by the Oil and Gas Conservation Board shall be in writing addressed to the minister. Seven copies of the application shall be presented to the minister at the time the application is made.
- (2) When a hearing has been ordered by the minister, the Board shall, as soon as conveniently possible, set a date for the hearing and cause notice thereof to be published in accordance with the Act and these regulations.
- (3) The Board may, at any time prior to making any recommendation to the minister, require from any interested party such data, information and material as it may deem advisable, and in such event the party shall forward to the Board seven copies of the data, information and material requested.
- (4) The Board may specify the time within which written submissions are to be made to the Board.
- (5) A party making a written submission shall make available copies thereof to any owner or operator affected thereby prior to and at the hearing.
- (6) Each person who makes a submission to the Board shall be represented at the hearing in person or by some other person with the knowledge and authority to speak on the matter and to explain the contents of the submission and answer questions by members of the Board or any other interested person present at the hearing.
 - (7) Oral evidence given at the hearing shall be under oath or affirmation.
- (8) The Board may arrange to have the testimony and other evidence given at the hearing recorded and transcribed.

PART III

LICENSING

- 17. Notification
- (1) Should the rights to any well be sold or transferred, the owner thereof shall notify the department within 15 days after the date of execution of such sale or transfer, indicating the names and land locations of the wells involved, the name of the new owner and the effective date of the sale or transfer.
 - (2) The department shall be notified by the most convenient method:
 - (a) prior to the commencement of operations to deepen a well beyond the objective zone shown on the original licence; and
 - (b) within 24 hours after a well has been spudded in.
 - 18. Licence to Drill, Deepen or Re-enter
- (1) No well shall be spudded in, or deepened without a licence issued pursuant to this part.
- (2) Prior to the commencement of operations, application in quadruplicate on a form together with the fee prescribed by the department, shall be made to the department for a licence to drill any well or structure test hole.
- (3) Where an application for licence to drill a well is made, the applicant shall at the same time supply to the department satisfactory evidence that the applicant has a right of entry on the surface in accordance with the Petroleum and Natural Gas Regulations under The Mineral Resources Act.
 - (4)—(a) Each application referred to in subsection (2) of this section, shall be accompanied by a plan in duplicate on a readable scale of lands comprised in the application. The plan shall be prepared from a survey approved by a Saskatchewan, Alberta or Manitoba Land Surveyor, or a Registered Professional Engineer, and shall show the exact location of the proposed well site in relation to the boundaries of the lands and to any rivers, lakes, roadways, coal mines, (whether worked or abandoned), existing wells, railways, pipe lines, high voltage power lines, aircraft runway or taxiway and structures of every kind upon or within the drainage unit and to any other well on the same drainage unit.
 - (b) The plan shall be dated and certified by a Saskatchewan, Alberta or Manitoba Land Surveyor or a Registered Professional Engineer, and his signature shall be duly witnessed.
 - (c) All measurements and distances shall be tied to some definite survey mark in surveyed territory; in unsurveyed territory, measurements and distances shall be tied to a surveyed base line or some prominent topographical feature acceptable to the minister.
 - (d) The plan shall show the elevation of the well site, location of the surface lease boundaries and entrance roadway.
- (5) Prior to commencement of operations, application on a form together with the fee prescribed by the department, shall be made to the department for a licence to re-enter to deepen a well beyond the original completed or abandoned depth.
 - (6)—(a) Where it is necessary to abandon a well due to mechanical failure or obstruction in the hole prior to completion of drilling but subsequent to the setting of surface casing a new well may be drilled in the same target area; provided, approval of the abandonment and permission to re-spud has been received from the minister.
 - (b) An application for a licence to drill such a well shall be forwarded to the department as soon as possible and shall contain the name of the original well followed by the letter "A" and a new plan showing the location of the new well as compared with the original well.
 - (c) Such application shall be accompanied by a fee equal to one half of the fee for the original drilling licence as provided for in the Schedule of Fees.
- (7) Where it is necessary to abandon a well before surface casing has been set, due to obstruction in the hole a new well may be drilled within the same target area and under the existing licence; provided, approval of the abandonment

and permission to re-spud has been received from the minister. A plan, showing the location of the new well, shall be forwarded to the department as soon as possible.

- (8) Prior to the commencement of operations, application on a form together with the fee prescribed by the department, shall be made to the department for a licence to drill any structure test hole. Such structure test holes may be licensed in groups of not more than ten holes per application.
- (9) No well shall be drilled elsewhere than at the point specified in the licence, unless permission is first received from the minister.
- (10) Prior to the commencement of recompletion operation, application shall be made to the department on a form prescribed by the department to plug back a well.
- (11) In an area where there may be more than one productive zone, the minister may require that the application set out the definite zone to which the well shall be drilled and the zone, or zones, from which the well is expected to produce.
- (12) Any licence issued pursuant to the Act or these regulations, shall be subject to such conditions, restrictions, and stipulations as may be deemed advisable having regard to the particular circumstances of each case.
- (13) A licence granted pursuant to this part shall be issued to the owner in duplicate.
- (14) The licence, or the duplicate thereof, together with the duplicate of any amendment thereof, shall be posted and kept prominently displayed at the well site during drilling operations.
- (15) The minister may cancel a licence if drilling has not commenced within ninety days after its issue.
- (16) The minister may, upon application or otherwise, amend a licence, provided that if the amendment is refused, written reasons will be given for such refusal.
- (17) Where two or more separately owned tracts are embraced within a drainage unit, or where there are separately owned interests in all or part of a drainage unit, no licence under this section shall be granted unless such interests are pooled as provided for in section 31 of the Act.
- (18) Where any owner commences or continues to drill a well without first obtaining a licence to do so, all drilling operations shall be closed down for a period equal to the interval from the time the well is spudded in to the date the licence is issued; provided, however, that the penalty period will not include shut down periods normally required for cement to set.
 - 19. Drilling Rig Licence
- (1) No drilling rig shall be operated unless a licence to operate such rig has been issued.
- (2) An application for licence together with the prescribed fee, shall be made in triplicate to the minister on a form prescribed by the department.
- (3) All licences made or issued under this section shall expire at midnight on the thirty-first day of March following the date of issue.
- (4) The application shall be granted and the licence issued unless the minister, after notice to the applicant and an inquiry, finds upon sufficient evidence that the applicant is not financially able or is not qualified in any other manner to operate the drilling rig in a competent manner.
- (5) Where, in the opinion of the minister, the licensee operated his drilling rig in such manner as to contravene the provisions of the Act, Regulations or Orders, and thereby creates a menace to oil, gas or water-bearing formations or to life or property, the minister may cancel his licence.
- (6) One copy of this licence shall be posted in a conspicuous place in the dog-house.

- 20. Service Rig Licence and Casing Puller
- (1) No person shall engage in the business of pulling casing or servicing wells, or plugging wells, or salvaging casing, unless he is the holder of a subsisting licence for each rig so used.
- (2) An application for a licence together with the prescribed fee shall be made to the minister on forms obtainable from the minister.
- (3) All licences made or issued under this section shall expire on the thirtyfirst day of March following the date of issue.
- (4) The application shall be granted and the licence issued, unless the minister, after notice to the applicant and an inquiry finds upon sufficient evidence that the applicant is not financially responsible or not qualified to operate the rig in a competent manner.
- (5) Where, in the opinion of the minister, the licensee operates the rig in such manner as to contravene the provisions of the Act, Regulations or Orders, and thereby creates a menace to oil, gas or water-bearing formations or to life or property, the minister may cancel the licence.
 - 21. Assignment and Transfers of Licences

Licences granted pursuant to section 18, 19 and 20, shall not be assigned or transferred without the written consent and approval of the minister.

22. Deposits

- (1)—(a) Before a licence to drill a well or structure test hole or re-enter an abandoned well will be granted, or in the event of the acquisition of ownership by transfer or assignment of a well or structure test hole, the owner shall have on deposit with the minister a total sum equivalent to an amount determined by the minister not exceeding \$20,000.00 as hereinafter set out, to guarantee the proper drilling, control, completion and abandonment of the wells and structure test holes of the owner in accordance with the Act, Regulations and Orders:
 - (i) An amount determined by the minister not exceeding \$5,000.00 for each well which is not completed as a producer or abandoned including the well described in the application;
 - (ii) An amount determined by the minister not exceeding \$1,000.00 for each well completed as a producer which is not abandoned;

 (iii) An amount determined by the minister not exceeding \$2,500.00 for each structure test hole which is not abandoned including the structure test hole or holes described in the application; and
 - (iv) An amount determined by the minister not exceeding \$1,000.00 for each well abandoned but for which there is not a surface release by the surface rights owner.
- (b) Upon the completion as a producer or abandonment of a well or structure test hole, the amount by which the total sum on deposit with the minister exceeds the total sum required to be on deposit pursuant to subsection (1) shall, upon application, be returned by the minister to the person entitled thereto, and if at any time the total sum on deposit with the minister is less than the total sum required to be on deposit there shall be a further sum paid into deposit to the extent of the deficiency.
- (c) The minister may require a deposit in accordance with this section on any well drilled prior to the coming into force of these regulations.
- (d) The deposit shall be by way of cash or bearer bonds of the Province of Saskatchewan or Government of Canada, provided that where it is desired to submit bearer bonds for the deposit the bonds shall total a minimum amount of \$5,000.00 in value and shall only be exchanged for the purpose of substitution for bonds of another series or denomination or by cash at such times as are satisfactory to the minister.
- (2)—(a) The minister may use all or any part of the deposit to carry out and to defray the cost of, and incidental to, the work of completion, suspension, abandonment, including surface restoration or remedial and clean up measures

as provided by section 43, or to ensure that the well sites, structure test hole sites and roadways are maintained in accordance with the Act, Regulations and Orders.

- (b) The return, reduction or usage of such deposit or any amount thereof shall not relieve the owner of his responsibility to maintain the well, well site, structure test hole and structure test hole site in strict accordance with the Act, Regulations and Orders.
- (c) In the event of the transfer or assignment of the ownership of any well or structure test hole which is not abandoned, both the transferor and the transferee and the assignor or assignee, or either of them, may be held responsible for the completion, operation, suspension, abandonment or maintenance of the well or structure test hole or the site in connection therewith unless notice of such change in ownership is given to the department and a deposit for the well or structure test hole is, or has been made to the credit of the transferee or assignee in accordance with the amounts required under section 22, in which case the transferee or assignee shall be deemed to be the owner responsible.

PART IV

DRILLING AND DEVELOPMENT

23. Prohibited Drilling Areas

- (1) No well or structure test hole shall be drilled within two hundred and fifty feet of any road allowance, surveyed road, railway, pipe line (excepting lease operating lines), high-voltage power line, or other right-of-way, dwelling, industrial plant, aircraft runway or taxiway, building used for military purposes, permanent farm building, school or church, except where otherwise approved in writing by the minister.
- (2) All drilling at or near any aircraft runway, or taxiway shall be in compliance with the provisions of the "Aeronautical Act" and any regulations made thereunder.

24. Provisions Before Drilling In

Adequate provision shall be made:

- (a) for the conservation of oil and gas before a well is drilled in; and
- (b) for producing and storage equipment before a well is placed on production.

25. Drainage Units

- (1) Subject to subsection (3) and (4) of this section, the drainage unit for an oil well in territory surveyed into sections in accordance with The Saskatchewan Surveys Act, shall be one legal subdivision, and elsewhere shall be an area which if so surveyed would be a legal subdivision.
- (2) Subject to subsections (3) and (4) of this section, the drainage unit for a gas well in territory surveyed into sections in accordance with The Saskatchewan Surveys Act, shall be one section, and elsewhere shall be an area situated so as to comprise land which if so surveyed would be a section.
- (3) Wherever, in the opinion of the minister, there is more than one productive zone the minister may consider each such productive zone separately for the purpose of establishing drainage units.
- (4) The minister may, after public notice, prescribe drainage units other than those provided for in subsections (1) and (2) of this section.

26. Qualifications For Allowables

(1) In order to qualify for a production allowable based upon the area of a legal subdivision or a forty acre drainage unit, an oil well shall be completed within a definite square target area, defined in accordance with the following rules:

(a) the centre of the target area shall be in the vertical centre line of the drainage unit, and the sides of the target area shall be parallel to the sides of

the drainage unit;

(b) the side dimension of the square target area shall be a minimum of 330 feet and shall increase with depth at the rate of 0.04 feet per foot of depth to a maximum dimension equivalent to one-half the side dimension of the drainage unit; and

(c) up to this maximum value the side dimension of the target area shall

be calculated in accordance with the following formula:

L = 330 + 0.04 D

where L = the side dimension of the square target area in feet, and D = the depth of the well from the surface to the top of the producing zone in feet.

- (2) In order to qualify for a production allowable based upon the area of a section or a 640 acre drainage unit, a gas well shall be completed within either:
 - (a) the target area as defined in subsection (1) in any one of the legal subdivisions 6, 7, 10 or 11 of a section, or of any one of the four central 40 acre drainage units in an approximately square area of 640 acres; or
 - (b) within the central 40 acres of the gas well drainage unit.
- (3) Where the minister prescribes a well drainage unit in accordance with subsection (4) of section 25, the minister may prescribe the target area within which a well shall be completed in order to qualify for a production allowable based on the area of the drainage unit.
- (4) If the well is not completed within the target area as prescribed pursuant to subsection (3) of this section, the minister may prescribe the area to be used as a factor in determining a production allowable; provided however, the minister upon application and after an inquiry may vary the order.
- (5) If any operator wishes to drill a well at any location within a drainage unit other than within the target area prescribed for the drainage unit, the procedure shall be as follows:
 - (a) The application, in four copies, shall indicate and include a description of the proposed location, a brief with supporting facts and technical data to establish the reasons for desiring the new location and the application for a licence to drill the well.
 - (b) If the department considers that the application substantiates that the new location is required solely by reason of a topographical feature or obstruction existing in the prescribed target area, the application may be approved subject to such penalties in respect to the production allowable for the well as may be applicable pursuant to the Act or the Regulations, provisions or orders issued thereunder.
 - (c) In the event that the application is not approved under subsection (2) above, then notice of the application will be published by the department in *The Saskatchewan Gazette*.
 - (d) If no objections in writing are submitted to the department within the time set out in the notice, the application may be approved subject to such penalties in respect to the production allowable for the well as may be applicable pursuant to the Act or the Regulations, provisions or orders issued thereunder.
 - (e) If any such objection is received prior to the date set out in the notice or in the event that the minister deems it necessary or advisable for any reason, the department will arrange to hold an inquiry to consider the merits of the application.
 - (f) The applicant should have copies of his application and supporting material available for distribution to any owner or operator affected thereby requesting the same.
- (6) Where a well is completed outside its target area as defined in subsections (1) or (2), of this section, the area to be used as a factor in determining the production allowable shall be that area equivalent to four times the product of the perpendicular distances from the bottom of the well to the nearest two boundaries of the drainage unit; provided, however, that the minister upon application and after an inquiry may direct that the allowable production be based upon some other area.

27. Drilling in Water Covered Areas

No drilling operations shall be carried out in a water covered area or within 250 feet from a shoreline without the approval of the minister.

28. Drilling Near Mine Workings

No person shall commence to drill a well within two miles of any active subsurface mining workings until he has obtained the approval of the minister.

29. Variation in Drilling Program

- (1) Subject to subsection (2) of this section, no departure from or variation in any program of operations approved or prescribed by the minister shall be made unless such departure or variation has been approved by the minister.
- (2) In case of an emergency in which an immediate departure from, or variation in the program is necessary, such departure or variation may be made to the extent that the same is necessary, and in any such case the operator shall immediately inform the minister by telegraph or telephone and shall confirm the same in writing.

30. Blow-out Prevention-Rotary Equipment

- (1)—(a) Subject to a Minister's Order to the contrary, the use of blow-out preventers in all areas is obligatory and they shall be used in accordance with established good practice. All drilling wells shall be equipped with a master gate, or its equivalent, and minimum blow-out control equipment consisting of:
 - (i) equipment that will completely close off the open hole;
 - (ii) equipment that will completely close off round the drill pipe, casing, and tubing that are being employed in the drilling of the well; and
 - (iii) a bleed-off line valve or valves of adequate size and working pressure.
- (b) The entire control equipment shall be in good working condition at all times and shall be tested once every 24 hours when in use and the result of each test shall be recorded on the tour report.
- (c) Controls for the blow-out preventers shall be located at a point not less than two feet outside the substructure.
- (2)—(a) It shall be the duty of the owner of a well drilled to install, maintain, and use at all times adequate control equipment as required above.
- (b) Except in instances in which loss of circulation occurs through unforseeable circumstances, sufficient drilling fluid of proper density shall be kept in the well at all times or the well shall be equipped with sufficient pressure controls to minimize the possibility of the well blowing out of control.

31. Surface Casing—Rotary Drills

The following surface casing requirements shall apply to wells drilled with rotary tools:

- (a) Suitable and safe surface casing shall be used in all wells and structure test holes unless otherwise approved by the minister.
- (b) In all wells drilled, sufficient surface casing shall be run to reach a depth specified in the licence, determined by such factors as potable fresh water and thickness of glacial drift, and shall be of sufficient size to permit the use of an intermediate string of casing.
- (c) Surface casing shall be set in or through an impervious formation, and shall be cemented by the pump and plug or displacement method with sufficient cement to circulate to the top of the hole.
- (d) Cement shall be allowed to set not less than twelve hours under pressure before drilling the plug.
- (e) If a float collar or shoe is used, pressure at the surface may be released immediately upon completion of the cement job; provided there is no bleed back.

32. Cable Drilling Procedure

- (1) Before commencing to drill, proper and adequate slush pits shall be constructed for the reception of mud of sufficient quality and quantity to control the well so that such mud may be available if and when the hole is plugged. Where cable tools are used, sufficient surface casing shall be set to a depth specified in the licence, determined by such factors as potable fresh water and thickness of glacial drift. Such surface casing shall be tested by bailing to insure a shut-off before drilling below the casing point proceeds. No natural gas which may be encountered in any section of a cable tool drilled hole above the ultimate objective may be permitted to blow while drilling proceeds, but must be shut off either by mudding or by the running of a string of casing, and, if the latter method is used, such string of casing must be tested by bailing to insure shut-off before drilling proceeds.
- (2) Casing program adopted for cable tool drilled wells must be planned to protect any potential oil or gas bearing horizons penetrated during drilling from infiltration of injurious waters from other horizons, and to prevent the migration of oil or gas from one horizon to another.

33. Adequate Equipment and Casing

(1) No equipment or casing used in drilling any well shall be used unless it is in good general condition and complies in all respects with the specifications set forth in the licence issued for the well, and with such further specifications as may from time to time be made or approved.

(a) Production casing shall be cemented by the pump and plug or displacement method, or by any other approved method, and shall be properly tested by the pressure method, and the cement shall set at least 24 hours before the

plug is drilled.

- (b) Where production casing is run through a porous zone, or zones, containing fresh potable water not protected from invasion by other fluids, such zone, or zones, shall be cemented off in accordance with good oilfield practice.
- (2) In completing a well, the operator shall adopt such methods and install such equipment as may from time to time be prescribed or approved by the minister.
- (3) Where it appears to the minister that any equipment or casing used in the drilling or production of a well is inadequate, defective or hazardous, the minister may require the replacement or reconditioning of such equipment or casing, and may require that operations be discontinued until the required action is taken.

34. Samples of Drill Cuttings

- (1) Unless otherwise directed by the minister, each owner shall cause to be taken, preserved and maintained a series of samples of the various formations which the drill penetrates in drilling the well, taken at interval depths of ten feet or at any other intervals as directed by the minister.
- (2) The samples shall be washed, dried, preserved in bags, accurately labelled with the name of the well and interval of depth and shall be delivered promptly at the owner's expense, to the laboratory of the department at Regina, within 25 days of rig release.

35. Oil, Gas, Water and Bottom Hole Fluid Samples

- (1)—(a) Wherever water makes its appearance in a well during drilling or production the owner may be required at his expense to:
 - (i) take and preserve not less than one quart of the water;
 - (ii) forward it to the laboratory of the department at Regina as soon as possible; or
 - (iii) afford such reasonable facilities as may be required by the minister for the sampling of the water.
- (b) Three copies of all analyses which the owner may have made or caused to be made on water samples recovered shall be supplied to the department by the owner within 25 days after such analyses are completed.

(2) Taking of Oil Samples:

(a) Wherever oil is recovered in a wildcat well, in such quantity as will permit a sample to be taken, not less than one gallon thereof shall be delivered promptly to the appropriate Department Field Office at the owner's expense.

- (b) Where oil is established in any field or pool, and the minister requires sampling of same, such samples shall be taken and promptly delivered to the department at the owner's expense.
- (c) Three copies of each analysis which the owner may have made or caused to be made on any oil sampled from drill stem test, separator, or treater, shall be supplied to the department within 25 days after such analysis is completed.
- (3) Taking of Gas Samples:
- (a) Wherever gas is recovered in a wildcat well, samples shall be taken in containers in such amounts and in such manner and at such times as the minister may direct, and shall be delivered promptly to the minister at the owner's expense.
- (b) Where gas is established in any field or pool and the minister requires sampling of same such samples shall be taken and promptly delivered to the department at the owner's expense.
- (c) Three copies of each analysis which the owner may have made or caused to be made of any gas sampled from drill stem test, separator, or treater shall be supplied to the department within 25 days after such analysis is completed.
- (4) Reservoir Fluid Studies

One copy of each reservoir fluid study which the owner may have made or caused to be made on fluids from any well, shall be supplied to the department by the owner within 25 days after such study is completed.

36. Cores

- (1) All cores taken from the core barrel shall be crated in correct stratigraphic order in core boxes of a kind and size specified in subsection (4) of this section, and accurately labelled on the body, not the lid, of each box, as to the number and interval of the core, top, bottom, and percentage recovery of the core, and the name of the well from which the core is taken.
- (2) All cores shall be protected from theft, or misplacement and shall be delivered prepaid by the owner to the department laboratory at Regina.
- (3) No cores shall be destroyed without the approval of the minister, excepting such portion thereof as may be reasonably necessary for analytical purposes.
- (4) All cores, excepting such portions thereof as may be reasonably necessary for analytical purposes, shall be forwarded to the department in wooden boxes of the following dimensions:
 - (a) length: 2½ feet;
 - (b) width: adequate for two rows of core; and
 - (c) depth: adequate for one row of core.
 - (5)—(a) No cores shall be taken out of the province without the consent of the minister, excepting such portions thereof as are reasonably necessary for analytical purposes.
 - (b) Three copies of all core analyses made on any cores from wells drilled within the province shall be supplied to the department by the owner within 25 days after such analyses are completed.
- (6) Each operator shall, within 10 days after the completion of a well from which core has been taken, submit to the department a statement showing the number of the core taken, and the number of standard size core-boxes used to contain the core.
- (7) The owner of a well being drilled for oil or gas in a designated field or pool may be required by the minister to core and test any formation from which production of oil or gas may be anticipated, and the information so obtained shall be forwarded to the minister by the most expeditious method.

37. Well Log Surveys

Before a well or structure test hole is completed or abandoned, the owner shall:

(a) cause an electrical log to be taken of the well or structure test hole with all pertinent data recorded on it, unless permission is obtained from the minister to dispense with the electrical log;

(b) whenever directed to do so by the minister, take any other log or other well survey that is generally recognized and in practical use in the industry for the obtaining of subsurface information pertinent to the well;

(c) supply to the department three complete copies of all logs or other well surveys run to obtain subsurface information, taken or made in any well, together with all pertinent factual data by the owner within 25 days after such logs or surveys are taken;

(d) supply all copies of well logs on the same scale as the original.

38. Deviation and Directional Surveys

- (1) The owner of a well shall make or cause to be made deviational surveys during drilling at intervals not exceeding five hundred feet from the top to the bottom of the well, or at such lesser intervals as the minister may require, for the purpose of ascertaining to what extent, if any, the well deviates from the vertical, and whenever required to do so by the minister shall make, or cause to be made, a directional survey of the well.
- (2) The minister may order the operator to make further surveys and prescribe the manner of making the same.

(3) The owner, immediately upon the making of a directional survey, shall make a report in writing to the minister setting out the manner in which the survey was made, the results thereof, and shall include a true copy of such survey.

(4) If the sum of the deviation surveys is one direction, or the directional survey show that the intersection of the well with any part of the pool projected vertically to the surface is nearer to the boundary of the drainage unit than a distance equivalent to one-quarter of the total distance along a straight line from the centre of the drainage unit through the aforesaid projected intersection on the surface to the nearest boundary of the drainage unit, the well shall not be completed, and shall not be brought into production without the written consent of the minister.

39. Release of Information

(1) For the purposes of this section, "completion date" shall mean date of release of drilling rig.

(2) All information obtained through the drilling of any well and recorded with the department as required by these regulations may be released from confidential status by the minister after a period of one calendar year next following the completion date of such a well, but until such period of time has elapsed, such information shall only be released for public inspection with the written consent of the owner.

(3) Notwithstanding anything contained in subsection (1) or (2) of this section, 30 days after an area has been designated as a field or pool by the minister, and provided that one year has elapsed from the completion date of the discovery well, all information furnished pursuant to the Act or regulations with respect to any well drilled as a follow-up well in such area may be released 30 days after the completion date of such well.

40. Plugging and Abandonment

(1)—(a) Subject to the provisions of subsection (d) of this section, no well or structure test hole shall be permitted to remain unplugged or uncased, and no seismic shot hole shall be permitted to remain unplugged after such well, structure test hole or seismic shot hole is no longer used for the purpose for which it was drilled or converted.

(b) If the minister is of the opinion that operations in respect of any well or structure test hole have been discontinued or delayed for any unreasonable period of time, he shall send a written notice to the owner, requesting that, within 30 days, the well or structure test hole be abandoned or that sufficient cause be shown to the minister why it should not be abandoned.

(c) If the well or structure test hole is not abandoned, or if within thirty days after the sending of the notice the owner fails to show sufficient cause to the satisfaction of the minister why it should not be abandoned, the minister may cause the well to be abandoned at the expense of the owner, or take such other action as he may deem advisable.

(d) The minister may in any case extend the time for the abandonment of any well or structure test hole upon such terms and conditions as he may deem advisable.

(2)—(a) Before any work is commenced to abandon any well, the owner shall in the most expeditious manner possible, give notice to the minister of his intention to abandon such well, which said notice shall set out his abandonment

program.

- (b) Notwithstanding subsection (a) of this section, before any work is commenced to abandon any completed well, the owner shall apply, on a form prescribed by the minister, to abandon such well; the minister may send a representative to witness the plugging of the well. The notice shall be delivered to the minister at least forty-eight hours in advance of the date specified for abandonment. Abandonment operations shall not be commenced until the minister has approved the abandonment program, or, in the alternative, has sent a representative to witness and approve the plugging of the well.
- (c) The plugs set in abandoning any well shall be listed on the Well Completion Data form and shall be forwarded to the department as soon as possible.
- (3) Notwithstanding subsection (2) of this section, a dry hole in which surface casing only has been set shall be abandoned in the following manner:
 - (a) A cement plug of a minimum length of fifty feet shall be placed immediately above and below or through each porous zone wherever possible. If the owner elects to set a plug across the porous zone, it shall extend from fifty feet below to fifty feet above the porous zone except in the case where the bottom of the hole is in a porous zone.
 - (b) A cement plug of minimum length of 100 feet shall be placed across the surface casing shoe.
 - (c) The surface casing will be cut off three feet below ground level.
 - (d) A five sack cement plug will be inserted in the top of the surface
 - (e) A steel plate shall be welded over the end of the casing in such manner as to completely close off the open end.
 - (f) The interval between the plugs shall be filled with an approved heavy mud-laden fluid.
 - (g) The owner shall have the option as to the method of placing cement in the hole by:

(i) pumping through tubing; or

- (ii) pump and plug; or(iii) any other method approved by the minister.
- (h) All plugs excepting the plug at the bottom of the well shall be probed for, and must be able to withstand four thousand pounds of weight.

(i)—(i) Where the plug fails to withstand the required pressure, the

plug shall be reset.

- (ii) Where the plug is found to be displaced a distance that renders it inadequate for the purpose of sealing off or isolating the porous or water-bearing stratum for which it was set, the plug shall be reset.
- (4)—(a) Notwithstanding subsection (2) of this section, after production casing has been set and providing that no casing shall be pulled,

where the well is not within a field and there is no danger of contamination of an upper formation by water channeling through the cement behind the casing, or

where there is no danger of bottom water contaminating the same formation in an offset well, or

where the well has not been producing sufficient natural gas to be called a gas well,

the well shall be abandoned in the following manner:

(i) A mechanical bridging plug will be set immediately above the perforations or open hole and a five sack cement plug set on top of the bridging plug; or in the alternate, a cement plug will be set by displacement to extend from below the perforations to at least fifty feet above the perforations or, in the case of an open-hole completion, from the bottom of the hole to at least fifty feet above the top of the open hole. This plug must be probed for and must withstand four thousand pounds weight.

(ii) Bottom plug will be tested for proper shut off.

(iii) The casing will be filled to surface with an approved fluid.
(iv) The surface casing will be cut off 4 feet below ground level and the production string will be cut off three feet below ground level.

(v) A five sack cement plug will be inserted in the top of the produc-

tion casing.

(vi) A steel plate will be welded so as to completely close off the

annulus between surface and production casing.

(vii) A steel plate will be welded so as to completely close off the

end of the production casing.

- (b) Where the well is within a field and there is danger of contamination of an upper formation by water channeling through the cement behind the casing or there is danger of bottom water contaminating the same formation in an offset well or the well has been producing sufficient natural gas to be called a gas well; provided, that casing shall not be pulled.
 - (i) A cast iron retainer will be set immediately above the perforation or open hole and cement squeezed into the fluid-bearing formation until a satisfactory pressure is obtained indicating proper shut off.

 (ii) The remainder of the program will be completed in accordance with (ii) (iii) (iv) (v) (vi) and (vii) of subsection (4)—(a).

(c) If production casing is being recovered:

(i) The first plug will be set in accordance with (4)—(a) (i) or

(4)—(b) (i).

- (ii) Casing to be cut but not pulled until sufficient cement has been run to ensure a plug 100 feet in length across the casing stub, 50 feet in the casing and 50 feet in the open hole, which plug is to be probed for.
 - (iii) The remainder of the hole to be abandoned in accordance with (3) (a) (b) (c) (d) (e) (f) (g) except that all plugs must be set before the bottom of the casing being pulled is moved above the lowermost part of the interval to be plugged.
- (5)—(a) Notwithstanding subsection (2) of this section, a structure test hole shall be abandoned in the following manner:
 - (i) A cement plug of a minimum length of fifty feet shall be placed immediately above or below or through each porous zone. If the owner elects to set a plug across the porous zone, it shall extend from fifty feet below to fifty feet above the porous zone except in the case where the bottom of the hole is in a porous zone.

(ii) If surface casing has been run then a cement plug of a minimum length of 100 feet shall be placed across the surface casing shoe.

(iii) The casing will be cut off three feet below ground level. (iv) A five sack cement plug will be inserted in the open end of the casing.

(v) A steel plate will be welded over the end of the surface casing

- in such a manner as to completely close off the end.

 (vi) If no surface casing has been run then a cement plug will be run from 50 feet below the potable fresh water sands to surface.
- (b) Upon completion of a structure test hole program in any area, the owner shall file a record of the abandonment program upon forms prescribed by the minister.
- (6) Should any well or structure test hole prove to be inadequately abandoned the owner or operator having caused the well or structure test hole to be drilled may be requested to properly abandon the same.
- 7) Notwithstanding anything contained in the foregoing subsections, the Department may approve or substitute in whole or in part any abandonment program.

41. Pulling Casing

- (a) In no instances shall surface casing be removed from any oil or gas well; and
- (b) In pulling intermediate strings of casing from any oil or gas well, the space outside the casing left in the hole shall be kept and left full of mudladen fluid to seal off all fresh and salt water strata and any stratum bearing oil or gas that is not producing.

42. Well Used For Fresh Water

If a well or structure test hole to be plugged may safely be used as a fresh water well, and such utilization is desired by the landowner, the well need not be filled above the required sealing plug set below fresh water; provided, that the landowner has agreed in writing to a satisfactory working arrangement which must be filed with and approved by the minister.

43. Restoration Of Surface And Liability For Improper Abandonment

(1) The owner of any well site and roadway shall, upon the final abandonment and completion of the plugging of any well or structure test hole:

(a) Clear the area around the location of all refuse material.

(b) Burn waste oil.(c) Drain and fill all excavations.

(d) Remove concrete bases, machinery and materials, and

- (e) Level the surface to leave the site as nearly as reasonable in the condition encountered when operations were commenced.
- (2) If anything which is required to be done under paragraph (1) of this section is done in a faulty or defective way, then, notwithstanding the approval of the abandonment program by the minister, the owner may be required by the minister to remedy such default or defect.
- (3) In the event of an abandonment being carried out contrary to the requirements of these regulations and directions contained in the minister's approval, the minister may take such steps as are necessary to carry out the abandonment in accordance with his requirements.
- (4) All costs and expenses incurred by the minister in carrying out the steps authorized by subsection (1) shall be payable by the owner to the minister on demand.

44. Removal of Drilling Equipment

- (1) No operator shall remove, or cause or permit to be removed the rig, derrick, or other drilling equipment from a well unless he has completed the well in accordance with the drilling licence, or abandoned the well in accordance with the requirements of the regulations.
- (2) No operator shall remove or cause or permit to be removed from any well or structure test hole during the course of drilling or operating any casing or other equipment essential to the proper control of a well without first obtaining the approval of the minister.

PART V

PRODUCTION

45. Notice of Intention

(1) Notice of Intention to:

(a) recondition a well with cement, plastic, acid or liquid fracturing

material; and

- (b) perforate a formation or casing in a well; shall be forwarded on post cards, obtainable from the Department of Mineral Resources, to the appropriate department field office not less than 48 hours prior to the commencement of any such operations.
- (2) The owner shall not allow a well to be shot with an undirected charge until the minister has been notified and has approved the contemplated action.

46. Shooting and Chemical Treatment of Wells

- (1) When shooting, perforating, or chemically treating a well, all reasonable precautions shall be taken to ensure that no irreparable injury is done to the well.
- (2) Where any injury is done to a well by shooting, perforating or chemically treating, the owner may repair or abandon the well, except that the owner shall promptly repair or abandon such well to the satisfaction of the minister where such repair or abandonment is reasonably necessary to prevent waste of oil or gas, or damage to persons or property.

47. Inadequate Completion

Where it appears to the minister that any shut-off of oil, gas or water in a well is not effective the minister may require tests or remedial measures, or both, be taken.

48. Adequate Equipment and Tubing

(1) Each flowing oil well must be produced through an approved oil and gas separator or treater.

(2) Each flowing well shall be equipped with adequate chokes or beans to

properly control the flow.

(3) Each oil well capable of flowing shall be equipped with tubing. The bottom of the tubing on a flowing well shall not be higher than one hundred feet above the top of the producing interval unless otherwise approved.

49. Production Testing

(1) Initial Production Tests:

(a) For the purposes of this section the date of first production shall be the day the well commences to produce new oil after recovery of all injected completion oil.

(b) An initial production test, using normal methods of production shall

be taken

(i) on each new or recompleted flowing well for a period of not less

than four consecutive hours;

(ii) on each new or recompleted well producing artificially for a period of not less than eight consecutive hours;

Notwithstanding the above minimum test periods, the entire production from a well for each day of the test period shall be reported as test production.

(c) The initial production test period shall be for a maximum interval of five calendar days or 120 hours of consecutive production, commencing with the date of the well's first production or immediately after swabbing operations of reasonable duration are completed.

(d) Daily production of oil, gas and water during the initial production test shall be measured and reported on a form prescribed and supplied by the department. Such form shall be submitted within twelve days of the date of the well's first production. If the test has not been completed by the due date a supplementary report showing the balance of production shall be submitted immediately following the completion of the test.

(e) Measured test production is not to be prorated but is to be shown as a separate entry on the production report submitted for the well under test.

(f) If a special pool order for production tests has been made or approved by the minister for any pool, the initial production test shall be taken and reported in accordance with the pool order.

(2) Additional Production Tests at Excessive Rates

(a) Where the owner of any well wishes to make a production test, other than the initial production test, at a rate in excess of the established maximum permissive rate in respect of such well, an application to conduct the test shall be submitted, on a form prescribed and supplied by the department, outlining the details of the proposed testing program and indicating what precautions will be taken to avoid damage to the reservoir due to excessive rates of production.

(b) No such test shall be commenced until approval thereof has been

obtained from the department.

50. Permissive Rates of Production

(1) Oil Wells:

(a) No oil well shall be allowed to produce other than for the purpose of taking an initial production test as required in section 49, unless and until the owner has filed with the minister an application for a maximum permissive rate of production from the pool in which the well is completed.

- (b) The date on which the maximum permissive rate shall become effective is the date the application is received in the department. The applied for maximum permissive rate shall be effective until such time as an authorized maximum permissive rate is set by the department. The authorized date may be varied from time to time on application by the owner, or by order of the
- (c) Notwithstanding section 26, subject to an application and after an inquiry, the minister may approve any other method of establishing maximum permissive rates or allowables.

(2) Gas Wells:

(a) No gas well shall be allowed to produce other than for the purpose of determining its initial production potential as required in section 65, paragraph one, unless and until the owner has filed with the minister an application for

a daily allowable for the producing pool of the well.

(b) The date the application is received by the department shall be the date on which the daily allowable requested by the owner shall become effective and such allowable shall apply until an authorized daily allowable has been set by the department. The authorized daily allowable so established may be varied from time to time on application of the owner subject to its being approved, or by order of the minister.

(c) The production from any gas well with a potential of 1,500,000 cubic feet per day or less in pools not controlled by a special pool allocation order shall be restricted to a maximum of 375,000 cubic feet per day, except when it is otherwise provided for by a pool order.

51. Battery Proration and Individual Well Tests

Each and every well shall be tested monthly for the purpose of reporting monthly gas, oil and water production on forms supplied by the department, except where exempted from this provision by Minister's Order. Such tests shall be of a time duration equivalent to the interval required to produce a normal day's production at a normal producing rate.

52. Well and Battery Testing Equipment

- (1) The well-head, separator, treater stock tanks, and piping equipment shall include such valve connections as are necessary to sample the oil, gas or water produced.
 - (2)—(a) Each and every battery shall be equipped with sufficient test separators, tanks, and gas metering equipment to insure that at least one production proration test of prescribed duration can be made each month.

(b) Meter fittings of adequate size to measure gas accurately for the purpose of obtaining gas production shall be installed on the gas vent lines or proper connections at the well-head shall be made for an orifice well tester.

(3) Well-head equipment shall be maintained in first class condition and such equipment shall be installed so that the pressure may be taken on the tubing and casing and the static bottom hole pressure may be obtained at any time by authorized agents of the minister.

53. Uncontrolled Wells

No well shall be permitted to flow uncontrolled.

54. Oil Storage

(1) No oil shall be stored in unprotected earth excavations; or in storage receptacles, which, in the opinion of the minister, are inadequate or likely to cause

waste or loss, or result in leakage, evaporation, or fire hazards.

(2) All tanks or batteries of tanks shall, unless otherwise approved by the minister, be surrounded by a dike or ditch of a capacity greater than that of the tank or battery of tanks, and the dike or ditch shall be maintained in good condition and free from high grass, weeds, or combustible material.

55. Location of Batteries

(1) All oil tanks or batteries of tanks shall be located so as to comply with any regulations made, or which may hereafter be made, under The Fire Prevention Act, and where no such regulations apply, the installation shall be so located that

the distance from the outer perimeter of the ditch or dike to any road allowance, surveyed road, railway (other than siding), or other right of way, dwelling, industrial plant, aircraft runway or taxiway, building used for military purposes, permanent farm building, school or church, shall not be less than 250 feet; except only where there exist special circumstances which, in the opinion of the minister, justify the location of the tanks within a lesser distance of any of the points above mentioned.

(2) No flare pit or end of flare line shall be located closer than two hundred and fifty feet to any road allowance, surveyed road, railway, pipe lines (excepting lease-operating lines), high voltage power line or other right of way, dwelling, industrial plant, aircraft runway or taxiway, building used for military purposes, permanent farm building, school or church; provided, however, that the minister where in his opinion special circumstances exist, may prescribe a greater or lesser distance.

56. Battery Housekeeping

The owner shall, upon the completion of any oil or gas well, clear the area around the location of all refuse material, burn waste oil, drain and fill all excavations and level the surface to leave the site in a neat and orderly condition consistent with climatic conditions:

(1) In no case shall salt water, drilling fluid, waste oil or refuse from tanks or wells be permitted to flow over the land.

(2) Any rubbish or debris shall be removed from the well-site, battery-site or pump station.

(3) All waste, oil, and refuse from tanks or wells shall be drained into proper receptacles located not less than one hundred and fifty feet from any tank, well or building, and shall be burned immediately or removed from the well-site, batterysite or pump station.

(4) No flammable product or waste product of any kind from any oil or gas well shall be permitted to run into any lake, stream, or other body of water, or

onto any highway or public road.

57. Safe Distances

- (1) To comply with Factories, Electrical Inspection and Licensing Act.
 All oil field production installations shall be constructed in compliance with
 the provisions of The Factories Act, Electrical Inspection and Licensing Act, and any other relevant Act or regulations thereunder.
- (2) The following minimum distances shall be deemed to be safe distances under the terms of The Oil and Gas Conservation Act.

(a) Seventy-five feet (75') minimum distance from-

- (i) Dog-house to well-head, separator or crude oil storage tank;
- (ii) Boiler, treater, dehydrator or heater to separator vent; (iii) Boiler, heater or steam generator to treater; provided that vessels with pop valves set at 15 lbs. or less shall be excepted from this requirement; (iv) Dehydrator and treater to crude oil storage tank and well-head;

(v) Flare pit to treater;(vi) Internal combustion engines to crude oil storage tanks. (b) One hundred and fifty feet (150') minimum distance from—

(i) Crude oil storage tank to well-head;

(ii) Flare pit to well-head, separator vent, or crude oil storage tank;

(iii) Boiler or heater to crude oil storage tank: provided, that the department may, in any particular case, by notice in writing to an applicant, approve of lesser distances if such lesser distances are, in the opinion of the minister, justified.

(c) Steam boilers and open flame steam generators shall be located at a point not less than one hundred and fifty feet distant from the oil well-head or producing well, and on opposite side thereof from which the prevailing wind blows, and all boilers and their operation must be approved by the Chief Boiler Inspector of the Government of Saskatchewan.

(d) Any engine, except an engine used as a prime mover on an oil well pumping unit, which is within seventy-five feet (75') of any well or oil storage tank must be constructed or enclosed so that it is externally spark-proof unless otherwise approved by the minister.

- (3) All unprotected sources of ignitable vapours shall be safely vented.
- (4) All battery piping shall be so arranged and provided with control valves to permit the ready shut-off of oil or gas in the event of fire in the battery installations.

58. Direct Well Pressures

The use of direct well pressure to operate any machinery, excepting gasoperated valves, regulators and chemical injector pumps, is prohibited.

59. Vacuum Prohibited

The use of vacuum pumps or other devices for the purposes of putting a vacuum on any gas or oil-bearing stratum is prohibited. However, the minister may upon application and after an inquiry and for the good cause shown, permit the use of vacuum pumps.

60. Prescription of Standards

- (1) The minister may, where not otherwise provided for, prescribe the methods to be used for the measurement of oil, gas and water and the standard conditions to which such measurements shall be converted.
- (2) Without restricting the generality of subsection (1) of this section, whereever the conditions of pressure and temperature of gas differ from the standard conditions prescribed therein, the minister may require the conversion of the volume from these conditions to the standard conditions.
- (3) In the event that the methods of measurement and standard conditions are prescribed pursuant to this section, such methods and standard conditions shall be used wherever the measurement of oil, gas or water is required.

61. Reservoir Surveys

(1) Direction of Survey

The minister may direct surveys in accordance with good oil field practice, of reservoirs containing oil and gas, to be made at such time, and in such manner, as he may deem advisable.

(2) Surveys to Include:

Notwithstanding the generality of subsection (1) of this section, reservoir surveys shall include:

- (a) the condition thereof;
- (b) the practices and methods employed by the owners; (c) the volume and source of crude oil and natural gas; (d) the pressure of the reservoir as an average;
- (e) the areas of the regional or differential pressure; (f) stabilized gas-oil ratios;
- (g) the producing characteristics of individual wells in any field;(h) the producing characteristics of any field; and
- (i) such other information as may be required, or directed by the minister.

(3) Owners to assist in reservoir surveys

Where a reservoir survey is directed to be made pursuant to the provisions of subsection (1) of this section, owners or operators are required to permit and assist the minister in making any and all tests that may be required by him, including bottom hole pressure determinations. The minister will not be liable for any damage incurred as a result of making any such test or survey.

62. Bottom Hole Pressure Surveys

Whenever a bottom hole pressure survey is made with respect to a well or wells in a pool, either on the initiative of the owner or at the direction of the minister, the results of the survey, together with any pertinent information which the department may request regarding the manner in which the survey was carried out, shall be reported promptly to the department by the owner after completion of the survey.

63. Gas-Oil Ratios

(1) No oil well shall be permitted to produce gas in excess of the maximum ratio determined for the pool by the minister unless all gas produced in excess thereof, excepting gas used in gas-lift operations, is returned to the pool from which it was produced under conditions authorized by the minister.

(2) Gas-oil ratios shall be computed in the manner prescribed by the minister.

64. Gas Conservation

(1) If, in the opinion of the minister, it is just, reasonable, economic, and in

the public interest to do so, the minister may by order:

(a) require the owner or operator of any gas well, or oil well at which gas is produced, or other well producing or capable of producing gas economically, to maintain, continue, or resume production of gas from such well, subject to such terms and conditions as the minister may prescribe;

(b) for the purpose of retaining gas in, or returning it to the underground formation, require the owner or operator of any oil well or well producing or capable of producing gas, to restrict or discontinue production of gas from

such well.

65. Gas Well Tests

- (1) Each gas well completed in any new pool shall be tested initially by the back-pressure method, using four back-pressure flows taken in sequence from low flow to high flow, from which four flows an absolute open flow for the gas well will be established.
- (2) The time and manner of taking potential tests of gas wells shall be as follows:

each operator shall make a test at least every twelve months on each of his producing gas wells for the purpose of determining its potential.

- (3) Open-flow and pressure test on gas wells may be witnessed or observed by a representative of the minister, and the minister shall be given reasonable notice by the operator of the well on which the test is to be taken, setting the time that such test will commence.
- (4) At the request of the owner or owners of a majority of the gas wells in any pool not subject to special pool regulation, the minister may direct that such gas wells in the pool be tested by a standard method, except that all gas wells in any one pool shall be tested by the same method. Any test that is approved or taken by the minister shall be the official test. All official potential tests shall be made in accordance with detailed instructions obtainable from the minister.
- (5) Each gas well having a potential of 1,500,000 cubic feet per day or less in pools not controlled by a special allocation order shall be exempt from the potential tests required in subsection (2) of this section. However, shut-in pressure tests shall be required on all such gas wells.
- (6) Shut-in pressures shall be taken by the operator on all gas wells during the months of April and October of each year, unless the taking of such pressures is covered by special pool orders. Shut-in pressures shall be taken with a deadweight gauge or bottom-hole pressure gauge after a minimum shut-in period of twenty-four hours. All shut-in pressures and the duration of the shut-in period thereof shall be reported to the minister.
- (7) The provisions of this section shall not apply to reservoirs used for gas storage purposes except and unless waste is involved.

66. Dual Production

(1) No well may be completed to produce from more than one pool without the approval of the minister.

(2) Upon approval by the minister, a notice will be given to the department by the owner so as to enable the department to send a representative to witness the installation of dual production equipment.

(3) Upon expiration of the original authorization to dually complete and produce, the dual zone must not be further produced unless an extension to the authorized period has been obtained. For purposes of control, the upper zone shall be deemed to be the second zone from which production is obtained.

(4) A dual producer shall, for the purposes of these regulations, be deemed to be a separate well for each zone produced.

67. Commingling of Production Prohibited

The production from one pool shall not be commingled with that from another pool before measurement unless otherwise approved.

68. Salt Water Disposal

Subject to the provisions of section 52 of the Act, all formation water produced from a well shall be disposed of by a method satisfactory to the department and in no case shall the disposal formation water, drilling field, waste, or oil and refuse from tanks or wells, be permitted to constitute a hazard to public health or safety, or contaminate fresh water or arable land.

- (1) Subject to an inquiry being held and approval being given by the minister salt water may be disposed of by the injection into the stratrum from which it is produced, or into any other salt-bearing stratum.
- (2) Notwithstanding subsection (1) of this section and subject to approval being given by the minister, brine or salt water may be temporarily disposed of by evaporation in earthen pits; provided, however, that such earthen pits shall be constructed for that sole purpose and shall be maintained to prevent the escape of the water.

69. Secondary Recovery—Fluid Injection

- (1) Subject to section 52 of the Act, a public inquiry, and approval by the minister, the owner of any well may inject gas, water, or other fluid into the formation containing oil or gas for the purpose of obtaining oil or gas from the reservoir.
- (2) Each well used for the injection of gas, water, or other fluid into a producing formation shall be adequately cased so as not to permit leakage, and the casing shall be cemented so that damage will not be caused to oil, gas, or fresh water resources.
- (3) Upon approval of the minister, pursuant to the provisions of section 52, subsection (2) of the Act, the applicant or the person in charge of gas injection or water flooding operations shall notify the minister:

(a) of the date of commencement of such operations; and(b) within ten days next following the discontinuance of such operations, together with reasons in writing in respect of such discontinuance.

PART VI

RECORDS

70. Well Name Register

(1) The department shall maintain a record of official well names, to be known as the Well Name Register, in which shall be entered:
(a) the name and location of each well:

- (b) the name of the licensee and his applicant;(c) the name of the drilling contractor; and
- (d) any subsequent name or names assigned to the well and approved by the minister;
 (e) the licence number.

(2)—(a) the last name assigned to the well in the Well Name Register shall be the official name of the well, and the one by which it shall be known and

- (b) the words used to identify a well, shall precede any numerals used in identifying the well. Every well name shall include in the following order—first, the L.S.D. number; and second, the section number, provided that in the case of 10 and 20 acre spacing, the L.S.D. number shall be preceded by the appropriate prefix by designating the four quarters of the L.S.D. commencing in the southeast quarter and continuing in a clockwise direction to the north-east quarter by the letters, A, B, C and D respectively.
- (3) If the licensee wishes to change the official name of the well, he shall apply to the department on a form supplied by the department and pay the prescribed fee.

(4) The minister, in his discretion, may grant or refuse an application to change the official name, and if the application is granted, the new name shall be entered in the Well Name Register.

71. Well Completion Reports

- (1) A report, certified by the owner or by an authorized representative of the owner shall be filed with the minister, on a form prescribed by the minister, within twenty-five days after the release of the drilling rig from a well.
- (2) A report, certified by the owner or by an authorized representative of the owner, shall be filed with the minster, on a form prescribed by the minister, within 25 days after completion of any workover job which may be reasonably construed as having been carried out to change the producing characteristics of the well; such workovers shall include, without limiting the generality of the foregoing, acidizing, formation fracturing, squeeze cementing perforations, and reperforating.

72. Well and Plant Records

- (1) Each person who produces, sells, purchases, acquires, stores, transports, refines or processes oil or gas shall keep and maintain in the province complete and accurate records of the quantities thereof, which records shall be available for examination at all reasonable times by the minister. The minister may require each such person to file with the department such reports as may be prescribed with respect to such oil or gas or any product thereof.
- (2) Each person who is the owner or who has the control or management of a refinery, scrubbing plant or processing plant in the province shall keep at his office or other place of business in the province records of:

 (a) oil, gas or water received into such refinery, scrubbing plant or

processing plant;

(b) the name and address of each person from whom the oil, gas or was received; water

(c) the quantity and quality of the oil and gas and the quantity and

type of water received from each person;

- (d) the price payable in respect thereof; and (e) each disposition by him of any product obtained from refining, treating, or processing the same.
- (3) Where a well is producing or is capable of producing oil or gas, the owner shall keep at his field office or other place of business in the province a daily record of the well in a form satisfactory to or prescribed by the minister showing:

- (a) the oil, gas, water and sediment (B.S. & W.) produced from the well; (b) the average separator pressure if a separator is in use; and (c) full particulars of the disposition of all products of the well.
- (4) Where water or gas is being injected or disposed of into a well, the owner shall keep at his field office or other place of business in the province, a daily record of the well in a form satisfactory to or prescribed by the minister showing:

(a) the gas or water injected or disposed of in the well; (b) the source from which the gas or water was obtained;

(c) the particulars of any treatment to which the gas or water has been subjected; and

(d) the pressure used in the injection of the fluid.

(5) The owner of a well, which during the preceding month was on production, or into which water or gas was injected during the preceding month, shall, on forms satisfactory to or prescribed by the minister, file not later than the fifteenth day of the month, a full report of:

(a) the oil, gas, water, and sediments (B.S. & W.) produced from the well during the preceding month:

(b) the water and gas injected into the well during the preceding month;

(c) the average pressure during the preceding month, if a separator was in use.

- (6) The owner of a well, which during the preceding month disposed of oil, gas, water and sediment (B.S. & W.), shall, on forms satisfactory to or prescribed by the minister, file not later than the twentieth day of the month a full report showing the disposition thereof.
- (7) The minister, upon application, may permit the keeping of records or the filing of reports in accordance with this section for a battery or group of wells, but, in such cases:

(a) the figures shall be apportioned in a manner satisfactory to the minister to indicate as nearly as possible the actual production of the individual

wells;

- (b) the apportioned figures shall represent the production of each well for all purposes.
- (8) The owner shall keep such other records and furnish such other reports as the minister may require.
- (9) Each person operating a plant for processing oil or gas shall keep a daily record of such oil and gas, and file with the department not later than the twenty-fifth day of each month a full report satisfactory to the minister, of the oil and gas processed during the preceding month.

73. Gas Well Reports

Reports of potential tests as required by section 65 shall be made on forms prescribed and supplied by the department and shall be forwarded promptly to the minister.

74. Gas Measurements

- (1) A well producing gas shall be equipped with a gas meter of a type approved by the minister, and no gas shall be produced at a well unless it is metered; provided, however, that the minister may give permission to dispense with the installation of a meter or the metering of the gas.
- (2) Each orifice meter shall be installed in accordance with the provisions of the code of The American Gas Association published as "Gas Measurement Committee Report No. 3", printed in 1955, or as subsequently amended by the same authority.
- (3) Where for economy of operation, gas from several wells is brought to a common locality for metering, each meter shall be marked clearly to indicate the source of gas being measured.
- (4) Any by-pass around a meter shall be closed by valves or stop-cocks that effectively stop all flow of gas when closed, and on every occasion when the by-pass is operated, and on any occasion where gas does not reach the meter, a suitable entry shall be in the tour report.
- (5) When an orifice meter is installed, a record thereof shall be made on the meter chart. Whenever an orifice plate is changed, a record of the time of change and the sizes of the orifice removed and inserted shall be recorded on the meter chart and in the tour report, and within the meter cover.
 - (6) Each orifice meter installed shall be equipped with a thermometer well.
- (7) The measured inside diameter of the pipe at the orifice shall be clearly marked on the pipe near the orifice flanges, and also inscribed in the meter shelter, together with the date of measurement and the name of the person making the measurement.
- (8) At installations where an orifice plate is bolted in place, the plate shall show clearly the size of orifice in inches and decimals, by figures stamped or cut into the metal of the plate, and a plate shall not be rebored or the orifice size increased without first removing or permanently defacing the old marking and substituting the new measurement prior to reinstallation.
 - (9) Each meter shall be maintained in good and useable condition.
- (10) Purchasers shall keep meter charts and records on gas purchased in a permanent file for a period of at least two years and such information shall be made available to the minister at his request.
- (11) The meter shall be suitably safeguarded from weather and from interference by unauthorized persons.

- (12) Orifice meter charts shall be clearly marked in such manner as to indicate the well or wells being metered and the time and the date of start and finish of records.
- (13) Charts used to record the measurement of gas produced in conjunction with oil shall be computed on a daily basis and shall be preserved for a period
- (14) In computing the quantity of gas passing the meter during the period covered by a chart, all metered gas shall be recorded, together with a fair estimate of all unmetered gas during all periods in which the meter for any reason fails to
- (15) Coefficients for calculating meter charts shall be computed according to the code published as "Gas Measurement Committee Report No. 3", and referred to in subsection (2) of this section.
- (16) The minister may permit group meter measurements, or after examination, may exempt any well or wells from metering the volume of gas produced therefrom, providing satisfactory estimates of the volume of gas so produced are supplied to the minister in lieu of such meter measurements.

75. Submission of Reports

(1) Oil and Gas Producers:

(a) The owner of a well, which during the preceding month produced oil or gas, shall, on forms prescribed and supplied by the minister, file with the department not later than the fifteenth day of the month a statement showing:

(i) The oil, gas, water and sediment (B.S. & W.) produced from the well during the preceding month.

(ii) The number of days the well was on production.

- (iii) The average separator pressure during the month, if a separator was in use.
- (b) The owner of a well, which during the preceding month disposed of oil, gas, water and sediment (B.S. & W.) shall, on forms prescribed and supplied by the minister, file not later than the twentieth day of the month a full report on the disposition thereof.
- (c) The owner of a well which is tied into a battery, shall submit to the Department not later than the fifteenth day of the following month, on a form prescribed and supplied by the Minister, a statement showing the results of the production test taken during the preceding month to establish hourly rates of oil, gas and water production for the purpose of prorating total battery production to the individual wells in the battery.
- (d) Where the operation of a producing well has been discontinued for any month but the well has not been abandoned, a nil production report shall be filed with the department by the owner of the well, on forms prescribed and supplied by the minister, not later than the fifteenth day of the month following until production is resumed or the well is abandoned.
- The results of the Initial Production Tests, taken in accordance with section 49, shall be filed with the department on forms prescribed and supplied by the minister, within twelve days after the date of the well's first production. If the test has not been completed by the due date a supplementary report showing the balance of production shall be submitted immediately following completion of the test.
- (f) The results of production tests, other than Initial Production Tests, shall, if the well is produced at rates in excess of the established maximum permissive rates or daily EA, be reported to the department on forms prescribed and supplied by the minister, upon completion of the test and in any event shall not be submitted later than the monthly production report covering production during the month of the test.
- (2) Pressure Maintenance or Disposal System Operators:
- (a) The owner of a well, which during the preceding month produced source water for subsequent injection or into which water or gas was injected during the month for pressure maintenance or disposal purposes, shall, on forms satisfactory to or prescribed by the minister, file with the department not later than the fifteenth day of the month a statement showing:

(i) the amount of source water produced during the month;

(ii) the amount of water received from each supplying well and the total injected during the month; and

(iii) the amount of gas injected during the month and the source

thereof;

(b) The owner shall keep such other records and furnish such other information as the minister may require.

(3)—(a) Purchasers:

Each purchaser of any crude oil or natural gas shall, not later than the twentieth day of each month next following the month in which the purchasing occurs, file with the department on forms satisfactory to or prescribed by the minister, a statement of all oil or gas purchased during the preceding month, indicating the supplying companies, producing fields and the complete disposition of the oil or gas so purchased.

(b) All purchasers of Saskatchewan crude oil shall file with the department two copies of a schedule showing well-head prices, by field or pool, that the company is offering for Saskatchewan crude oil currently purchased or which the company is willing to purchase. The schedule shall include all terms and conditions upon which the posted prices are based.

(4) Transporters:

Each transporter of crude oil or natural gas shall submit a statement to the department not later than the twentieth day of each month, on forms satisfactory to or prescribed by the minister, showing by field, quantities received from each supplier during the previous month, opening and closing inventories, adjustment, and deliveries to final consumers.

(5) Refiners:

Each refiner of crude oil shall submit a statement to the department not later than the twenty-fifth day of each month on forms prescribed and supplied by the minister, showing receipts from each supplier (by field—except in the case of pipe line streams), opening and closing inventories, adjustments and quantities used, together with the price f.o.b. refinery for each shipment of crude oil received during the previous month. In addition full details of refined products production, value of production, and disposition thereof shall be shown.

(6) Processing Plant Operators:

The owner of a plant engaged in the processing, scrubbing or purification of natural gas shall submit to the department not later than the twentieth day of each month, on forms prescribed and supplied by the minister, a statement showing receipts (by field and supplier), quantities and values of products produced and the disposition thereof, together with such other information as the minister may require.

76. Measurement of Production

- (1) If a well is producing oil or gas, the licensee shall measure the production of oil, gas and water from the well in a manner satisfactory to the minister. In all cases individual well production will be separately measured, unless permission has been obtained from the minister to commingle such production with the production from another well, or wells prior to measurement.
- (2) The minister upon application, may permit the keeping of records or the filing of reports on a battery basis, where two or more wells are tied into common storage and treating facilities. In all such cases:

(a) Approval of the minister must be obtained before recording and reporting production from any well on a battery basis.
(b) The minister shall prescribe the manner, frequency and duration of tests to be taken to establish the rates of production of each fluid for each well in the battery.

(c) The minister shall prescribe the manner in which the total commingled production of each fluid is to be prorated to the individual wells in the battery.

- (d) The production figures prorated in accordance with (c) above, shall represent the production of each well for all purposes.
- (3) The owner shall keep such other records and furnish such other reports as the minister may require.

PART VII

SAFETY REGULATIONS

77. Application

The provisions of this Part shall apply to the erecting of derricks for, and in the drilling of gas and oil wells, and to the cleaning, repairing, operation and maintenance of gas and oil well drilling rigs and equipment.

78. Responsibility as to Carrying Out Regulations

Unless otherwise directed by the Minister;

- (1) Every person who operates a drilling rig shall take all necessary and reasonable measures to enforce these regulations and to ensure that they are observed by every employee: and every toolpusher and driller shall take all reasonable measures to enforce the requirements of all such regulations as are applicable to the work over which he has supervision and to ensure that the same are observed by workmen under his charge and direction.
- (2) Every workman shall take all reasonable measures to carry out his duties in accordance with such rules as are applicable to the work in which he is engaged.

79. General Requirements

(1) No derrick, buildings drawworks, links, elevators, tongs, machinery, tools or other equipment shall be used which are unsafe, unsuitable or not so constructed, protected, placed and operated as to afford reasonable safety from accidents to persons employed in or around wells.

(2) The spudding in or drilling operations at any oil or gas well shall not be performed until all moving parts of machinery are completely guarded and until all stairways, handrails and escape lines with escape buggy installed at the derrick platforms are adequately installed and securely fastened in position.

(3) When gas and oil wells are being drilled the depth, size and type of casing to be set and cemented shall be that specified on the licence to drill issued by the minister.

80. Blowout Prevention

- (1) It shall be the duty of the owner of a well being drilled to install, maintain and use at all times adequate control equipment as required by subsection (1) of section 30.
- (2) Except in instances in which loss of circulation occurs through unforeseeable circumstances, sufficient drilling fluid of proper density shall be kept in the well at all times to minimize the possibility of the well blowing out of control.

81. Derricks

- (1) Every derrick and every derrick floor, walk, ladder and platform shall be substantially constructed of structurally sound material to conform with standard practice, and shall be kept in good repair.
- (2) Subject to the provisions of section 100 of these regulations, the engine-room, pump-house, derrick floor and fourble board shall be adequately enclosed to a sufficient height to provide protection against the weather for employees during the months of November to March inclusive.
- (3) Every derrick built of wood shall be substantially constructed of No. 1 common Coast Fir or No. 1 Mountain Fir, and shall be maintained in good repair.

82. Derrick-room Exits

- (1) Where practicable, an exit shall be provided on each of at least three sides of the derrick-room, in addition to one from the dog-house direct to the outside.
- (2) The pumphouse shall have two doors leading to two different directions to the outside, placed as far apart as practicable.
- (3) All exit doors of a derrick, including all doors of the dog-house, shall open outwards from the derrick-room and shall not be held closed with a lock or an outside latch when workmen are employed in the main derrick-room.

83. Derrick Crown Platform and Railings

(1) On every jacknife derrick constructed for drilling or equipped for redrilling, a platform at least two feet wide shall be provided on at least one side of the crown block. This platform shall be equipped on its outer edges with a standard two-rail railing three and one-half feet high, and a toe-board six inches high.

(2) On every other derrick constructed for drilling or equipped for redrilling, a platform at least two feet wide shall be provided around the edges of the crown block platform. This platform shall be equipped on its outer edges with a standard two-rail railing, three and one-half feet high, and a toe-board six inches high.

84. Outside Derrick Platform for Conventional Drilling Rigs

(1) A platform shall be provided completely around the derrick level with the fourble board or with the principal working platform where necessary.

(2)—(a) The width of such platform shall be not less than two feet. Platforms shall be provided with openings not exceeding thirty inches by thirty inches to permit the passage of men climbing derrick ladders.

permit the passage of men climbing derrick ladders.

(b) Standard two-rail railings, three and one-half feet high, shall be provided around the outer edges of the platform with toe-boards six inches high.

85. Inside Derrick Platforms

- (1) Each platform erected on the inside of every derrick, except stabbing boards, shall completely cover the space from the working edge of the platform back to the legs and girts of the derrick.
- (2) The decking plank of the working side of each platform shall be secured to the derrick girts with U and J bolts.
- (3) Each working platform shall be equipped with a wire rope not less than one-half inch in diameter, securely fastened under and over the platform with U or J bolts, both ends being secured to the same girt of the derrick.
- (4) Stabbing boards shall be constructed of not less than one Fir plank three inches by twelve inches, and one reinforcing plank two inches by twelve inches, or of material of equal strength; all planks shall be free of knots or other defect and shall project at least twelve inches beyond the support on which they rest. Pieces of not less than two-inch angle iron shall be bolted near the ends of the three inch by twelve inch board, either inside or outside the girt supporting the board. In addition, each end of the board shall be fastened to the derrick with a safety line of one-half inch diameter wire rope securely fastened to the inside of the board with U or J bolts at a point not exceeding three feet towards the centre from the girts.
- (5) The supports on opposite sides of a derrick on which stabbing board is placed shall be reasonably level, rigid, horizontal and securely fastened.

86. Crown Ginpoles

- (1) The ginpoles at the crown of every conventional derrick shall have at least two uprights and a cross beam or their adequately constructed equivalent.
- (2) The clearance between the crown platform and the crossbeam shall be not less than seven feet.

87. Crown Blocks

The gudgeons of all sheaves on every derrick crown block shall be provided with bearings fitted with caps or metal straps constructed in a manner that will prevent any gudgeon from jumping out of its bearings.

88. Fingers

On all rotary rigs where fingers are used at fourble platforms, each finger shall be secured to the derrick by a wire-rope safety cable, not less than one-half inch in diameter, attached to the outer end of the finger or in some other approved manner.

89. Ladders and Stairways

- (1) On every derrick a ladder shall be provided from the floor to the crown platform as herein provided.
- (2) All ladders shall be caged or provided with platforms at not more than twenty-one (21) feet apart or with other approved derrick ladder safety equipment.
- (3) Caging for a ladder shall be constructed of metal hoops securely fastened to the ladder spaced not more than six feet apart, and extended out not more than

thirty inches from the rungs of the ladder. Hoops shall be fastened together with metal bars at least one inch by one-eighth inch, spaced not more than twelve inches apart. The lower loop of such caging shall be not more than eight feet from any landing.

- (4) Platforms shall be not less than four feet long and shall extend at least thirty inches from the rungs of the ladder, and shall be equipped with a standard two-rail railing and toe-board as described in section 83. Platforms shall be provided with openings not exceeding thirty inches by thirty inches to permit the passage of men climbing ladders.
- (5) Rungs shall be uniformly spaced not to exceed fourteen inches centre to centre. The width of the ladder shall be not less than twelve inches between stringers.
- (6) A clearance of at least six and one-half inches shall be maintained back of the ladder rungs.
- (7) Each ladder section shall be secured to the derrick with U bolts and shall project at least three feet above its platform.
 - (8) No section of the ladder shall lean back from the vertical.
- (9) A stairway and landing platform shall be installed to connect the derrick floor to the catwalk.
- (10) All stairways shall be securely fastened, provided with suitable handrails, and kept in a state of good repair.

90. Auxiliary Means of Escape

- (1) Auxiliary means of escape from the fourble board or the principal working platforms on every drilling derrick shall be provided by means of a special rigged escape line from the working level to the ground.
- (2) Each escape line shall be not less than one-half inch diameter soft iron wire rope, smooth and free from obstructions.
- (3) The escape line shall be tightened to such a tension that a man suspended on such a line twenty to twenty-five feet from the anchor will touch the ground.
- (4) The escape line shall be attached to the derrick at a point to provide a ready and convenient means of escape for the derrick man at the fourble board or other principal working platform and shall extend to a securely anchored deadman.
- (5) The length of the escape line shall be twice the height of the derrick to which it is attached.
- (6) Each escape line shall be equipped with a safety buggy provided with a suitable hand brake that shall be kept at the fourble board or principal working platform at all times during which a workman is engaged thereon. The safety buggy shall be inspected at weekly intervals and a record of this inspection shall be entered in the Daily Drilling Report or Rig Record Book by the toolpusher in charge at the well.

91. Safety Belt

- (1) Every safety belt shall be of a design approved by the Department.
- (2) A safety belt securely fastened to the derrick shall be provided for and worn by each workman when engaged in working above the derrick floor.
- (3) At any stabbing board the safety belt rope shall be attached to a one and one-eighth inch manila rope, or to a wire rope of equal strength stretched across the derrick at approximately seven feet above the stabbing board.
- (4) The safety belt rope worn by the derrickman shall be a manila rope of at least one and one-eighth inches in diameter, or cable of equal strength.
 - (5) The slack in the line of a safety belt rope shall not exceed five feet.
- (6) The toolpusher shall ensure that every safety belt, line and fitting is kept in good repair.

92. Head Protection

Hard hats shall be worn by all workmen when employed on the derrick floor, including work on the erection and dismantling of derricks.

93. Eye Protection

Safety goggles of a type approved for the purpose for which they are being used shall be provided by the employer and worn by the workman at all times when engaged in;

- (1) the mixing of chemicals; or
- (2) welding operation; or
- (3) the chipping of metal or any other operation involving the tapping or hammering of metal on metal; or
 - (4) the grinding of metal; or
 - (5) cleaning by use of compressed air.

94. Pipe Hooks

Where pipe hooks are used above the derrick floor, every pipe hook shall be secured to the derrick in such a manner as to prevent the hook from falling.

95. Loose Material in Derricks

No tools, machine parts or material of any kind shall be kept in a derrick above the derrick floor unless there is occasion for their immediate use, and then adequate precaution shall be taken to prevent their falling on persons below.

96. Travelling Blocks, Hooks, Elevators and Weight Indicators

- (1) No employee shall ride the travelling block, hook, or elevators, nor slide down pipes, kelly hose, cables or rope lines other than the escape line.
- (2) On all types of travelling blocks the points where the cables run on the sheaves must be guarded against personal contact.
- (3) Every drill-pipe casing, tubing and sucker-rod hook shall be provided with a latch or other device to prevent elevator links and other equipment becoming accidently disengaged from the hook.
- (4) Every drilling rig shall be equipped with a reliable weight indicator to enable the driller to determine the weight being carried on the drilling line and every diaphragm indicator shall be equipped with a safety line.

97. Counterbalances

On rotary drilling rigs every counterbalance above the derrick floor, when not fully encased or running in permanent guides, shall be attached to the frame of the derrick with a separate wire-rope safety line not less than five-eighths inch in diameter so as to prevent the counterbalance from coming within eight feet of the floor.

98. Hand Tools

All hand tools shall be kept in a state of good repair.

99. Well Completion and Work-Over Jobs

- (1) On all occasions before wells are brought into production by swabbing, bailing or displacement with gas or oil, the siding shall be removed from three sides of the derrick below the derrick floor.
- (2) Before bailing or swabbing operations are undertaken and before work-over jobs are commenced, the siding shall be removed from any two opposite sides of the derrick to a height of not less than six feet above the derrick floor.
- (3) The suction pit or tanks used for the circulation of oil shall not be located inside the pumphouse.

100. Oil and Gas Storage Tanks and Containers

(1) No workman shall be required to enter any tank or other container used for the storage of oil or of any product thereof, or any confined space unless and until:

(a) All gases likely to prove injurious to each workman have been removed;

(b) such workman has been equipped with an Air Line Mask or other breathing apparatus, and whatever equipment is used must be of a type approved for such use by the U.S. Bureau of Mines; or

(c) such workman has been supplied with a rope which shall have been made fast to his body and also to a substantial support on the outside of the tank or other container; such rope must be of sufficient length to reach from such support on the outside to any point of work in such tank or container and shall be of sufficient strength to bear the weight of the workman; and
(d) such workman shall be attended by two men whose duty it is to stay on

the outside of such tank and to keep a close watch over the workman inside. Two men are required so that if necessary such workman can be given immediate artificial respiration by one, while the other goes for further aid.

(2) All work in any confined space where conditions are such as to produce nausea or indisposition on the part of the workman shall be arranged in short shifts, with the men on the outside alternating with the workman inside.

(3) No flashlights or lanterns other than those which are approved for such use by the U.S. Bureau of Mines shall be used around gas or oil wells.

101. Electrical Wiring and Equipment

The electrical wiring and equipment on every drilling rig shall be of a type approved for the purpose by the Chief Electrical Inspector of the Department of Labour and in all respects shall comply with The Electrical Inspection and Licensing

102. Illumination of Rigs

Lighting shall be sufficient to provide at all times for a minimum illumination of:

(1) five foot candle power on all of the derrick floor;

(2) three foot candle power at the fourble board, and pumps and catwalk; and

(3) one foot candle power at the shale-shaker, stairways and other working areas.

103. Control of Static Electricity

Metallic parts of containers and conductors of flammable liquids shall be in electrical contact with and connected to the ground in such manner as will prevent development of static electric sparks.

104. Fire Extinguishers

(1) Each drilling rig shall have not less than two twenty-pound dry powder extinguishers, and each boiler house shall have not less than two five-gallon non-freeze type fire extinguishers, all of which shall be kept in good working condition.

(2) When a steam pressure of one hundred pounds or more is used on or about any rig there shall be placed in the derrick room thereof, apart from other snuff line, a steam hose of a diameter of not less than one inch, and a length of hose not less than twenty feet, securely connected to a steam line with the valve situated close to the exit therefrom.

105. Gas Masks

Every employer shall keep on hand a sufficient number of airline respirators or gas masks, all of which shall be of a type approved by the U.S. Bureau of Mines, and they shall be used by all employees when working in a gaseous area.

106. Fire Prevention

(1) No person shall smoke within one hundred feet of any receptacle used for storage, measurement or separation of oil or natural gas products, or within seventy-five feet of any oil or natural gas well where oil or gas may be present.

(2) On all internal combustion engines on a derrick floor or drilling engine room;

(a) The exhaust pipes shall be insulated and the ends thereof directed away

from the wellhead; and
(b) The manifolds shall be shielded to prevent their contact with liquids or

gases which might otherwise fall thereon.

(3) No fire shall be located less than one hundred and fifty feet from the well or any oil storage tank. All fires used by the operator for any purpose shall be safeguarded by sufficient mechanical or other means so that no hazard to surrounding property shall be created.

- (4) All waste material shall be burned or disposed of in such a manner as not to create any fire hazard to the wells, tanks or stations, or pollute any stream or any fresh water stratum.
- (5) No heating or lighting apparatus involving the use of a flame shall be allowed in the drilling rig dog-house.
- (6) No stove or open flame heater shall be used within one hundred and fifty feet of any well or tank for storage of oil.
- (7) Steam boilers and open flame steam generators shall be located at a point not less than one hundred and fifty feet distant from the oilwell head or producing well, and on the opposite side thereof from which the prevailing wind blows, and all boilers and their operation must be approved by the Chief Boiler Inspector of the Government of Saskatchewan.
- (8) All engines within one hundred and fifty feet of any well or oil storage tank must be constructed or enclosed so that it is externally sparkproof.

107. Fuel Tanks

Except for the fuel tanks actually connected to the operating equipment, no storage of gasoline or liquid fuel shall be permitted within seventy-five feet of a well. Drainage from such a location shall be such that the flow is in a direction away from the location of such well.

108. Drill Stem Tests

Unless a rig is adequately lighted by natural light or by means of floodlights having no electrical equipment capable of igniting gas or oil within seventy-five feet of the wellhead, no drill pipe shall be disconnected during a drill stem test unless there is no possibility of any oil or gas being present in the drill pipe.

109. Test Plugs

In addition to its regular means of attachment, every test plug shall be equipped with a safety line and attached thereby to the links when above the derrick floor.

110. Pipe Racks

Pipe racks shall be substantially constructed and provision shall be made to have the casing, drill pipe, drill collars and the like laid thereon adequately cleated or pinned to prevent them from rolling off the rack on to a workman.

111. Mudguards

When casing or drill pipes are being disconnected on drilling platforms, a metal guard that will prevent mud or water splashing on workmen shall be installed on every drilling rig.

112. Rotary Drilling Rig

- (1) On both sides of the drawworks, guards of heavy metal shall be provided for all drive sprockets and chains. Such guards shall be strong enough to withstand the shock of breaking chains, and shall be installed so that workmen cannot come in contact with the moving parts.
- (2) The guard for the low gear drum-drive sprockets and chain next to the driller shall be flanged with a steel plate so that a breaking chain cannot hit the driller or foul the brake lever.
- (3) On every chain-drive rotary, the pinion shaft, the couplings and the bevel gear shall be guarded with metal shields.
- (4) On every shaft-drive rotary, the drive pinions, the shaft, the couplings and the bevel gears shall be guarded with metal shields.
- (5) The pump end of every rotary hose shall be securely fastened to the derrick, and the swivel end of such hose shall be securely fastened to the swivel housing with a safety chain or wire cable.
- (6) The key seat and projecting key on every cathead shall be covered with a smooth thimble.
- (7) Every cathead shall be provided with an adequate guard to separate the first wrap of the catline.

(8) The tops and outer sides of the hoisting drum brake flanges shall be guarded by a steel plate of a thickness not less than one-eighth of an inch. These guards shall be installed with a minimum working clearance from the brake and shall be securely bolted in place.

(9) All rotary tongs shall be provided with two separate wire-rope safety cables

of a diameter not less than five-eighths of an inch.

- (10) Every stem-drive rotary drilling engine shall, in addition to the usual steam-control valve, be equipped with a quick closing steam valve to which is attached an extension handle of sufficient length so as to be readily available to the driller while at the controls of the rig.
- (11) The rotary table shall not be used for final making up or initial breaking out of drill pipe.
 - (12) Where practicable, a locking device shall be installed on all control levers.
- (13) The eye connection of all safety cables shall be securely fastened with at least three U-type clamps or other approved clamp.
- (14) The suction pit shall be equipped on its outer edge with a two-rail railing of adequate height.

113. Rig Record

At every drilling rig there shall be kept a copy of the Daily Drilling Report or a hard covered book in which shall be entered information as required by sections 90, 114, 115 of these regulations. These records shall be readily available to the Inspector at all times.

114. Draw Works Brakes

The brakes on the drawworks of every drilling rig shall be tested by each driller when he comes on shift to show whether they are in good order. Such brakes shall be examined at weekly intervals by the toolpusher or other person authorized by the owner, who shall enter the result of this examination in the Daily Drilling Report or Rig Record Book over his signature.

115. Hoisting, Casing or Rotary Drilling Lines

- (1) The end of the hoisting line shall be securely fastened to the hoist drum shaft.
- (2) The hoisting line shall be long enough so that when the travelling block is laid horizontally on the derrick floor, there will remain at least three wraps of rope on the hoist drum.
- (3) Every hoisting line used in well-drilling, well-servicing and well-abandoning operations shall be examined weekly by the toolpusher or other person authorized by the owner to determine the condition of the line, who shall enter the result of his examination in the Daily Drilling Report or Rig Record Book over his signature.
- (4) Every drilling rig shall have a suitable cutting and slipping program and the record of this program shall be entered in the Daily Drilling Report or Rig Record Book.
- (5) The ultimate strength of wire-rope hoisting lines should be based on the manufacturer's catalogue.

116. First Aid Requirements

- (1) Every driller employed on a gas or oil well drilling rig should be the holder of a Certificate of Competency in First Aid approved by The Workmen's Compensation Board of Saskatchewan.
- (2) Every employer shall provide and maintain at every drilling rig a standard first aid kit, as requested by The Workmen's Compensation Board of Saskatchewan, and a carrying stretcher.

117. Cellars

Cellars, after the setting and heading up of the surface casing with the exception of those less than four feet deep or those in which a false flooring has been installed to make such cellar less than four feet in depth, shall be provided with two runways constructed opposite each other, extending from the cellar bottom to the ground surface, provided that:

- (1) The slope of the runway shall not exceed twenty degrees from the horizontal; and
 - (2) The width of the runway shall be not less than three feet in the clear; and
- (3) The clearance between the floor of a runway and the derrick sills shall not be less than seven feet; and
- (4) The cellar and cellar exit shall be secured against caving by the use of sheeting and shoring installed in a manner that will permit the unobstructed passage of employees; and
 - (5) That portion of the runway shall be kept clear of snow or other material.

118. Storage of Explosives

Explosives shall be stored in properly constructed magazines at a distance not less than five hundred feet from any place where any drilling or production operation is being carried on.

119. Notice of Fatal Accident

- (a) Where in or about any well, well site, drilling rig, service rig or any machinery or equipment which is used in the drilling, boring or in any other manner for the purpose of obtaining oil or gas or for the injection of any fluid into an underground reservoir, any accident occurs which causes loss of life to any person employed thereat, the Chief Inspector of Mines shall be notified as soon as possible by telephone or telegraph.
- (b) Scene To Be Undisturbed—No person shall, except for the purpose of saving life or relieving human suffering, interfere with, destroy, carry away or alter the position of any wreckage, article or thing at the scene of, or connected with a fatal accident until an inspector or authorized person has completed an investigation of the circumstances surrounding such accident.
- (c) Permission To Alter Scene—In the case of a fatal accident and where it is impossible for an investigation as outlined in preceding section to be carried out, permission may be granted by the Chief Inspector of Mines that such wreckage, articles, and things at the scene of, or connected with the accident be moved to such extent as may be necessary to permit the work to proceed provided that:
 - (i) Photographs showing details of the scene of the accident have been made prior to such moving
 - (ii) Drawings showing details of the scene of the accident have been made prior to such moving.
- (d) For the purposes of this section "authorized person" shall be any inspector or petroleum engineer of the Department of Mineral Resources or any member of the Royal Canadian Mounted Police.

120. Authority of Inspectors

When, in the making of inspections, the person authorized by the Minister to do so observes the use or apparent use of unsafe equipment, materials or tools, or the existence of unsafe working conditions that are not specifically covered by these regulations, he may issue an order requiring the owner or operator to make such changes, improvements or repairs as may be necessary to remove hazards to workmen or to reduce the possibility of accidents.

Schedule of Fees

The following fees shall be paid to the department in respect of work or services arising out of these regulations:

| Application for licence to drill a well for oil or gas\$ | 50.00 |
|--------------------------------------------------------------|-------|
| Application for licence to re-enter an abandoned well | 25.00 |
| Application for a licence to drill a structure test hole | 10.00 |
| Application for a change of well name | 25.00 |
| Application for a licence to operate drilling rig | 25.00 |
| Application for a licence re casing pullers and service rigs | 25.00 |
| Inspection of well files | .25 |

APPENDIX I CONTENTS

MINISTER'S ORDERS APPLICABLE TO PROVINCE

- 1. Provisions Governing the Limitations of Production of Oil.
- 2. Provisions Governing the Limitations and Allocation of Gas Production from Gas Wells.

Published in The Saskatchewan Gazette, dated Friday, December 30, 1955; Volume 51, No. 52; Pages 1267 to 1272.

By virtue of the power vested in me by The Oil and Gas Conservation Act, I, J. H. Brockelbank, Minister of Mineral Resources, do hereby order, effective on, from and after the first day of January, 1956, that the Regulations governing the Limitation and Allocation of Production of Oil set forth in the Schedule to an Order made by myself on the 4th day of November, A.D. 1954, be hereby rescinded and the Provisions governing the Limitation of Production of Oil set forth in the Schedule hereto be substituted therefore and made applicable to all oil wells in the province.

Dated at Regina, Saskatchewan, this 22nd day of December, A.D. 1955.

J. H. BROCKELBANK, Minister of Mineral Resources.

SCHEDULE

PROVISIONS GOVERNING THE LIMITATION OF PRODUCTION OF OIL

TERMS AND EXPRESSIONS

- 1. Except as otherwise provided these provisions shall be construed with reference to the terms and expressions contained in The Oil and Gas Conservation Act, and the Regulations thereunder made by Order in Council No. 304/53, as amended by Orders in Council Nos. 1446/53, 2638/53, 1588/54, 1985/54, 126/55, 498/55 and 2057/55.
- 2. In these provisions, unless the context otherwise requires, the expression:
 (1) "MPR" means 'maximum permissive rate' at which a well may be permitted to produce as determined by the department in accordance with the formula

$MPR = T \times FA \times FD \times FPS \times FRL$

expressed in whole barrels of oil per day;

- (2) "T" means effective thickness in feet of the producing formation of the well for which the MPR is being established, as determined by the department;
- (3) "FA" shall have a value equal to 1/40 of the number of acres upon which the production allowable for a well is based;
- (4) "Fp" means development factor which shall have a value of 2.5 minus ([the number of direct offset wells × 0.25] plus [the number of indirect offset wells × 0.125]) provided that the Minister may reduce the value of the development factor to a value not less than unity in the case of any well where the drilling activity on offset locations to the said well has reached a static condition for a period of six consecutive months or should it appear that further drilling on offset locations, would, in the opinion of the Minister, result in non-commercial formations being drilled;

(5) "FPS" means porosity shrinkage factor, and shall equal

$$f (1-c) S$$

(0.10) × (0.75) × (0.75)

where

f = porosity of the formation rock included in 'T', expressed as a decimal value, c = interstitial water content of the formation rock included in 'T', expressed as a decimal value,

S = shrinkage factor of the crude oil being produced expressed as a decimal value, all such values to be determined by the department;

(6) "FRL" means recovery-life factor, and shall equal

where

L = expected economic life of the well in years

R = expected recovery of oil from the well's drainage unit, expressed as a decimal value of the total oil originally present,

both such factors to be determined by the department;

- (7) "offset well" means a well located on one of the eight target areas nearest in proximity to the target area of the subject well in respect to the same pool, provided that where a well is drilled off-target it shall for the purposes of this subsection be deemed to have been drilled within the target area;
- (8) "direct offset well" means one of the 4 offset wells nearest in proximity to the target area of the subject well;
- (9) "indirect offset well" means an offset well other than the 4 direct offset wells;
- (10) "Authorized MPR" means for any well the latest maximum permissive rate established by the department under these provisions, on form MR-66;
- (11) "Daily MPR" for a well in any given month means the product of the latest authorized MPR multiplied by the gas-oil ratio and water-oil ratio penalty factors derived from the last previously reported gas, oil and water production figures.
- (12) "Monthly MPR" means for any well the product of the current daily MPR multiplied by the number of days in the month;
- (13) "Authorized EA" means for any well the latest economic allowance established by the Department in accordance with the table set out in Schedule C to these provisions and issued on Form MR-66;
- (14) "Daily EA" for a well in any given month means the product of the latest authorized EA multiplied by the gas-oil ratio and water-oil ratio penalty factors derived from the last previously reported gas, oil and water production figures;
- (15) "Monthly EA" means for any well the product of the current daily EA multiplied by the number of days in the month;
- (16) "Daily Production Limit" means for any well in any given day an amount equal to the current daily MPR or EA whichever is applicable, plus an amount not exceeding 25% thereof;
- (17) "Monthly Production Limit" means for any well the product of the current daily production limit multiplied by the reported number of calendar days in the month that the well has produced.
- (18) "Gas-oil ratio" or "GOR" means the ratio of the number of cubic feet of gas produced in any given period to the number of barrels of oil produced from the same source in the same period, expressed in cubic feet per barrel.
- (19) "Water-oil ratio" or "WOR" means the ratio of the number of barrels of water produced in any given period to the number of barrels of oil produced from the same source in the same period, expressed in barrels per barrel.
- (20) "Gas-oil ratio penalty factor" means a variable penalty factor less than unity used to decrease an authorized MPR or EA, whichever is employed, for a well where the gas-oil ratio plus the average separator pressure for the last producing month in respect to the said well is in excess of 1,006.

- (21) "Water-oil ratio penalty factor" means a variable penalty factor less than unity used to decrease an authorized MPR or EA, whichever is employed for a well, where the water-oil ratio for the said well is in excess of .01999.
- (22) "Overproduction" means for any well in any given month production in excess of the monthly MPR or the monthly EA whichever is applicable;
- (23) "Underproduction" means for any well in any given month production less than the monthly MPR or monthly EA whichever is applicable;

AUTHORIZED MPR's

- 3. Subject to the provisions herein, an owner or operator who desires to produce oil in commercial quantities from a well shall make application to the department on forms prescribed by the department for an MPR in respect of the well.
- 4. The department shall, after the receipt of the application referred to in Section 3, establish an MPR and an EA for the well on form MR-66, a copy of which shall be given to the applicant.
- 5.—(1) No oil shall be produced from any well completed as a producing well from and after the coming into force of these provisions, excepting such production as may be required in authorized initial production tests as provided in the Regulations made by Order in Council No. 304/53 as amended under the Act, unless and until an application for an MPR for the well has been received by the Department.
- (2) Notwithstanding subsection (1) the Minister may, if he deems it advisable or necessary, permit any well completed as a producing well prior to the 19th day of November, 1954, to produce oil in the absence of an authorized MPR for the said well.
- (3) Oil may be produced from a well at the rate applied for from the date of the receipt by the department of the application for an MPR to the effective date of the MPR established by the department, and thenceforth at the rate determined from the authorized MPR or EA in accordance with these provisions.
- (4) An MPR established pursuant to these provisions may be varied from time to time upon the initiative of the department or upon the application of the owner and the recommendation of the department.
- 6.—(1) The gas-oil ratio penalty factor shall be determined in accordance with the table set out in Schedule "A" to these provisions and the water-oil ratio penalty factor shall be determined in accordance with the table set out in Schedule "B" to these provisions.
- (2) Notwithstanding subsection (1) the calculation of gas-oil ratio penalty factor and the water-oil ratio penalty factor shall be subject to such orders as the Minister may make in respect to any pool or field providing for special penalty factor tables to be employed in respect to the designated pool or field and allowing credit for the return of gas or water produced with oil from a well or wells to the producing formation.
- 7. The Minister, or any duly authorized agent of the Minister, may seal or cause to be sealed with a metallic seal, all or any valves and meters installed at a well or wells or battery for the purpose of making tests to determine a well's gas-oil ratio, water-oil ratio and net oil production.

CALCULATION OF RATES

- 8. In calculating the rate at which any well is allowed to produce, the authorized EA will be employed if it is greater than the authorized MPR.
- 9. Notwithstanding anything herein contained, the calculation of the MPR for any well shall be subject to any orders the Minister may make in respect to a designated field, pool or area, in which the well is located, establishing a formula or method, other than as provided in these provisions, to be employed in calculating the MPR, or establishing certain values for any variable factors which are used in calculating the MPR.

UNDERPRODUCTION

- 10.—(1) The amount of underproduction in any month shall be applied, firstly, against the amount of cumulative overproduction for the well in the immediately preceding month.
- (2) The amount of, or balance of underproduction not applied in accordance with paragraph (a) shall be cumulated from month to month as a credit against subsequent

overproduction for the well, provided that at the end of any month the amount of such credit shall not exceed 20% of the monthly MPR for the said month, and underproduction in excess of the amount of such credit shall be cancelled and shall not be considered in the computation of credits for subsequent months.

(3) Underproduction occurring previous to the 1st day of January, 1956, shall not be considered in computing the credits described in subsection (2) of this Section.

OVERPRODUCTION

- 11.—(1) Overproduction shall be cumulated.
 (2) It shall be the duty of the operator to calculate his daily MPR and daily EA as defined above and to keep himself advised of the current and cumulative overproduction status of his wells, and to correct any overproduction as soon as possible without notification by the department.
- 12.—(1) An observation period in respect to the production from a well shall commence in a month in which cumulative overproduction first took place following a period of one month or more in which no cumulative overproduction occurred and shall extend for a period of consecutive months until the correction of the cumulative overproduction is made.
- (2) If the production of a well is in excess of the monthly MPR or the EA, or is in excess of the monthly production limit for two consecutive months in any observation period, the operator shall be notified by the end of the fourth month of the observation period. The letter of notification will stipulate the month in which overproduction and/or excessive daily production took place, whichever is applicable, and will state that overproduction must be corrected and/or that the practice of exceeding the daily production limit must cease by the end of the fifth month of the observation period or be subject to the action provided for in subsections (4), (5) and (6) hereof.
- (3) If correction of overproduction is made and if the practice of exceeding the daily production limit ceases during the third or fourth month of the observation period, the letter of notification will be automatically cancelled.
- (4) If correction of overproduction is not made or if the practice of exceeding the daily production limit has not ceased during the third or fourth month of the observation period, the operator will be required to furnish the department with production figures for the fifth month of the observation period within ten days after the close of the fifth month.
- (5) If correction of overproduction is not made or if the practice of exceeding the daily production limit has not ceased during the said fifth month, the operator will be required to show cause why the well should not be shut-in or sealed.
- (6) If sufficient cause for failure to make the correction in respect to overproduction or to cease the practice of exceeding the daily production limit is not shown to the satisfaction of the Minister, or if the operator fails to provide the production figures or other informaton required or requested by the department in respect to the well, the Minister may then cause the well to be shut-in or sealed for a specified period of time to be determined by the Minister.
- 13. Notwithstanding section 12 should the Minister consider overproduction or daily production from any well flagrantly excessive, he may require production figures to be submitted at the close of any month, and, if necessary, may cause the well to be shut-in or sealed for a specified period of time to be determined by the Minister.

SEALING OR SHUTTING-IN PROCEDURE

- 14.—(1) Notice of affixing seals or shutting-in the well shall be given either verbally or in writing to the person in charge at the well by the person affixing the seals or shutting-in the well and no further notice shall be required to be given.
- (2) The seals so affixed shall not be removed except in case of emergency, nor shall production be resumed from the well where it has been shut in, until the expiration of the specified period of time referred to in sections 12 and 13 or until the test has been made in the case of Section 7.
- (3) Subject to subsection (2), the duly authorized agent of the Minister, or the operator, may remove the seals or permit the well to resume production where it has been shut-in.

(4) Upon application of the operator, specifying special circumstances, the Minister may permit or cause the seals to be removed at any time during the sealing or shut-in period.

SEPARATOR PRESSURE

15. Should an operator fail to report the separator pressure for a well in any month, the figure of one hundred (100) pounds may be employed by the department in calculating the gas-oil ratio penalty factor.

| *GOR plus SEP. Pr. | Penalty | GAS-OIL RA' *GOR plus SEP. Pr. | Penalty | *GOR | Penalty | BLE *GOR | Penalty Factor |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| plus | 1.00 0.99 0.98 0.97 0.96 0.95 0.94 0.93 0.92 0.91 0.90 0.89 0.88 0.87 0.86 0.85 0.84 0.83 0.82 0.81 0.80 0.79 | plus | 0.74 0.73 0.72 0.71 0.70 0.69 0.68 0.67 0.66 0.65 0.64 0.63 0.62 0.61 0.60 0.59 0.58 0.57 0.56 0.55 0.54 0.53 | plus SEP. Pr. 2064 2107 2153 2200 2250 2301 2356 2412 2472 2535 2601 2670 2743 2821 2903 2990 3082 3180 3284 3396 3515 3643 3781 | 0.48 0.47 0.46 0.45 0.44 0.43 0.42 0.41 0.40 0.39 0.38 0.37 0.36 0.35 0.34 0.33 0.32 0.31 0.30 0.29 0.28 0.27 | plus SEP. Pr. 4455 4663 4891 5142 5421 5732 6081 6474 6923 7438 8035 8737 9574 10588 11842 13432 15517 18367 22500 29032 40909 69230 225000 | Penalty Factor 0.22 0.21 0.20 0.19 0.18 0.17 0.16 0.15 0.14 0.13 0.12 0.11 0.10 0.09 0.08 0.07 0.06 0.05 0.04 0.03 0.02 0.01 |
| 1291 1308 | 0.78 0.77 0.76 | 1943 1982 | 0.52 0.51 0.50 | 3930 4090 | 0.26 0.25 0.24 | | |

*GAS-OIL RATIO PENALTY FACTOR TABLE

| *GOR plus Penalty SEP. Pr. Factor | *GOR | *GOR | *GOR |
|-----------------------------------|----------------------|----------------------|-----------------|
| | plus Penalty | plus Penalty | plus Penalty |
| | SEP. Pr. Factor | SEP. Pr. Factor | SEP. Pr. Factor |
| 1325 1343 | 2022 0.49 2064 | 4265 4455 0.23 | |

NOTE:

*Gas-Oil Ratio: Total separator gas-oil ratio, cubic feet per barrel, (average for last previous producing month.)

Separator Pressure: Pounds per square inch gauge (average for last previous producing month). For multi stage separators, use lowest separator pressure.

PENALTY FACTORS: Gas-oil ratio penalty factor (to apply to current month). Use the total of Gas-Oil Ratio plus Separator Pressure to obtain Penalty Factor. To obtain Penalty Factor for an *exact* Gas-Oil Ratio plus Separator Pressure total set out in table, read upper Penalty Factor. For Example:

for Gas-Oil Ratio plus Separator Pressure = 1081 Penalty Factor = 0.93

To obtain Penalty Factor for Gas-Oil Ratio plus Separator Pressure values between tabulated values do not interpolate. Use Factor opposite. For example:

for any Gas-Oil Ratio plus Separator Pressure total from 1082 to 1093 inclusive, Penalty Factor = 0.92.

Penalty Factors to be read to two figures only. Do not interpolate.

*WATER-OIL RATIO PENALTY FACTOR TABLE Schedule B

| *Water-Oil Ratio | Penalty Factor | *Water-Oil Ratio | Penalty Factor | *Water-Oil Ratio | Penalty Factor | *Water-Oil Ratio | Penalty Factor |
|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| 0.0000 | 1.00 | 0.6509 | 0.75 | 1.9647 | 0.50 | 5.8602 | 0.25 |
| 0.0199 | | 0.6865 | | 2.0449 | | 6.1818 | 0.25 |
| 0.0316 | 0.99 | 0.7231 | 0.74 | 2.1284 | 0.49 | 6.5308 | 0.24 |
| 0.0524 | 0.98 | 0.7607 | 0.73 | 2.2154 | 0.48 | 6.9108 | 0.23 |
| 0.0737 | 0.97 | 0.7993 | 0.72 | 2.3062 | 0.47 | 7.3264 | 0.22 |
| 0.0954 | 0.96 | 0.8391 | 0.71 | 2.4009 | 0.46 | 7.7826 | 0.21 |
| | 0.95 | | 0.70 | | 0.45 | | 0.20 |
| 0.1176 | 0.94 | 0.8800 | 0.69 | 2.5000 | 0.44 | 8.2857 | 0.19 |
| 0.1403 | 0.93 | 0.9220 | 0.68 | 2.6035 | 0.43 | 8.8433 | 0.18 |
| 0.1634 | 0.92 | 0.9654 | 0.67 | 2.7120 | 0.42 | 9.4649 | 0.17 |
| 0.1871 | 0.91 | 1.0100 | 0.66 | 2.8257 | 0.41 | 10.1621 | 0.16 |
| 0.2113 | 0.90 | 1.0560 | 0.65 | 2.9450 | | 10.9496 | |
| 0.2360 | | 1.1034 | | 3.0704 | 0.40 | 11.8462 | 0.15 |
| 0.2613 | 0.89 | 1.1523 | 0.64 | 3.2023 | 0.39 | 12.8760 | 0.14 |
| 0.2871 | 0.88 | 1.2028 | 0.63 | 3.3412 | 0.38 | 14.0714 | 0.13 |
| 0.3136 | 0.87 | 1.2549 | 0.62 | 3.4878 | 0.37 | 15.4757 | 0.12 |
| 0.3130 | 0.86 | 1.3088 | 0.61 | 3.6426 | 0.36 | | 0.11 |
| | 0.85 | | 0.60 | | 0.35 | 17.1489 | 0.10 |
| 0.3684 | | 1.3644 | | 3.8064 | | 19.1764 | |

*WATER-OIL RATIO PENALTY FACTOR TABLE

| *Water-Oil Ratio | Penalty Factor | *Water-Oil Ratio | Penalty Factor | *Water-Oil Ratio | Penalty Factor | *Water-Oil Ratio | Penalty Factor |
|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | 0.84 | | 0.59 | | 0.34 | | 0.09 |
| 0.3968 | 0.83 | 1.4220 | 0.58 | 3.9800 | 0.33 | 21.6842 | 0.08 |
| 0.4258 | | 1.4816 | | 4.1643 | | 24.8656 | |
| 0.4556 | 0.82 | 1.5433 | 0.57 | 4.3604 | 0.32 | 29.0344 | 0.07 |
| 0.4861 | 0.81 | 1.6072 | 0.56 | 4.5693 | 0.31 | 34.7346 | 0.06 |
| | 0.80 | | 0.55 | | 0.30 | | 0.05 |
| 0.5174 | 0.79 | 1.6734 | 0.54 | 4.7924 | 0.29 | 43.0000 | 0.04 |
| 0.5495 | 0.78 | 1.7422 | 0.53 | 5.0312 | 0.28 | 56.0645 | 0.03 |
| 0.5824 | | 1.8135 | | 5.2874 | | 79.8181 | |
| 0.6162 | 0.77 | 1.8876 | 0.52 | 5.5630 | 0.27 | 136.4615 | 0.02 |
| 0.6509 | 0.76 | 1.9647 | 0.51 | 5.8602 | 0.26 | 448.0000 | 0.01 |

NOTE:

*Water-Oil Ratio: Barrel per barrel (average for last previous producing month.)

Penalty Factor: *Water-Oil ratio penalty factor (to apply to current month). To obtain Penalty Factor for an *exact* *Water-Oil Ratio value set out in table, read upper penalty factor. For example:

for *Water-Oil Ratio = 0.1871 Penalty Factor = 0.92

To obtain Penalty Factor for *Water-Oil Ratio values between tabulated values do not interpolate. Use Factors opposite. For example:

for any *Water-Oil Ratio from 0.1872 to 0.2113 inclusive Penalty Factor = 0.91 Penalty Factors to be read to two figures only. Do not interpolate.

*Water must include all water and BS & W produced by the well.

ECONOMIC ALLOWANCE TABLE

Schedule C

| Depth of mid-point of perforations or open hole, in feet | Economic Allowance Barrels per day | Depth of mid-point of perforations or open hole, in feet | Economic Allowance Barrels per day |
|----------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------|------------------------------------------|
| 0 to 500 | 30 | 5100 to 5500 | 42 |
| 500 to 950 | 31 | 5500 to 5850 | 43 |
| 950 to 1400 | 32 | 5850 to 6200 | 44 |
| 1400 to 1850 | 33 | 6200 to 6550 | 45 |
| 1850 to 2300 | 34 | 6550 to 6900 | 46 |
| 2300 to 2700 | 35 | 6900 to 7250 | 47 |
| 2700 to 3100 | 36 | 7250 to 7600 | 48 |
| 3100 to 3500 | 37 | 7600 to 7900 | 49 |
| 3500 to 3900 | 38 | 7900 to 8200 | 50 |
| 3900 to 4300 | 39 | 8200 to 8500 | 51 |
| 4300 to 4700 | 40 | 8500 to 8800 | 52 |
| 4700 to 5100 | 41 | 8800 to 9100 | 53 |

THE OIL AND GAS CONSERVATION ACT

GAZETTED: March 25, 1955.

By virtue of the power vested in me by section 18 of The Oil and Gas Conservation Act, I, J. H. Brockelbank, Minister of Mineral Resources, do hereby order that the provisions set forth in the Schedule attached hereto, shall apply to every gas well for the purpose of limiting and allocating the production of gas in respect thereto.

Dated at Regina, Saskatchewan, this 14th day of March, A.D. 1955.

J. H. BROCKELBANK, Minister of Mineral Resources.

SCHEDULE

Provisions governing the Limitation and allocation of Gas Production from Gas Wells.

TERMS AND EXPRESSIONS

- 1. Except as otherwise provided these provisions shall be construed with reference to the terms and expressions contained in The Oil and Gas Conservation Act, and the Regulations thereunder made by Order in Council No. 304/53, as amended by Orders in Council Nos. 1446/53, 2638/53, 1588/54, 1985/54 and 126/55.
 - 2. In these provisions unless the context otherwise requires, the expression:
- (1) "Authorized D. A." means for any gas well the latest daily allowable established by the Department under these provisions on form MR-141.
- (2) "Monthly Allowable" means for any gas well the product of the latest authorized D. A. multiplied by the number of calendar days in the month.
- (3) "Monthly Production Limit" means for any gas well the product of the latest authorized D. A. multiplied by the number of calendar days in the month that the well has produced.
- (4) "Overproduction" means for any well in any given month production in excess of the monthly allowable.
- (5) "Underproduction" means for any gas well in any given month production less than the monthly allowable.

AUTHORIZED DAILY ALLOWABLE

- 3. Subject as hereinafter provided, application on a form prescribed and supplied by the Department for a daily allowable in respect of every gas well shall be submitted to the Department by the owner, provided that such owner wishes to produce gas from such well.
- 4.—(1) A daily allowable for each well in respect of which an application is submitted to the Department shall be established in accordance with the formula, Daily Allowable = percentage of estimated potential open flow capacity, such percentage to be 20% or such other percentage as may be deemed by the Minister to be satisfactory in the light of facts presented in the application, within 14 days next following receipt of such application, and notice in form MR-141 of the Department setting forth such daily allowable and the effective date thereof shall be given to the owner by the Department.
- (2) Notwithstanding subsection (1) of this section, should it be established at a Public Hearing called by the Department that use of the said formula creates inequities between operators or mineral right owners due to the particular reservoir characteristics of a particular field, then the well allowables may be resolved on a field basis, using such formula as may be most reasonable in the opinion of the Minister.
- 5.—(1) Effective the first day of June, 1955, no gas shall be produced from any well completed as a producing gas well prior to the coming into force of these provisions, unless and until a daily allowable has been established and notice thereof given to the owner.
- (2) No gas shall be produced from any well completed as a producing gas well from and after the coming into force of these provisions, excepting such production as may be required in the taking of potential open flow capacity tests as provided in

the Regulations, made by Order in Council No. 304/53, as amended under the Act, (section 324) unless and until a daily allowable has been established and notice thereof given to the owner.

(3) Any daily allowable established pursuant to these provisions may be varied from time to time upon the intiative of the Department or the application of the owner and the recommendation of the Department.

UNDERPRODUCTION

6. Where there is underproduction from any gas well in any given month, the amount thereof shall not be added to the monthly allowable in any succeeding month.

OVERPRODUCTION

- 7. Overproduction shall be cumulated.
- 8. It is the operator's responsibility to keep himself advised of the current and cumulative overproduction status of his gas wells, and to correct any overproduction as soon as possible without notification by the Department.
 - 9.—(a) In this section the expression:

 - "first month" means the month in which overproduction first took place.
 "second month" means the month immediately following the first month.
 - (3) "third month" means the month immediately following the second month.(4) "fourth month" means the month immediately following the third month.
 - (5) "fifth month" means the month immediately following the fourth month.
- (b) If the production of a gas well is in excess of the monthly allowable or if in excess of the monthly production limit for two consecutive months in any observa-tion period, the operator shall be notified by the end of the fourth month. The letter of notification will stipulate the month in which overproduction and/or production in excess of the monthly production limit took place and will state, whichever is applicable, that overproduction must be corrected and that the practice of exceeding the monthly production limit must cease by the end of the fifth month or be subject to the action provided for in subsections (d) and (e) hereof.
- (c) If correction of overproduction is made and if the practice of exceeding the monthly production limit, as may be the case, ceases during the third or fourth month, the letter of notification will be automatically cancelled and a new observation period will commence.
- (d) If correction of overproduction is not made or if the practice of exceeding the monthly production limit has not ceased during the third or fourth month, the operator will be required to furnish the Department with production figures for the fifth month immediately after the close of the fifth month.
- (e) If correction of overproduction has not been made or if the practice of exceeding the monthly production limit has not ceased during the fifth month, the operator will be required to show cause why the well should not be shut in. If sufficient cause for failure to make the correction in respect of overproduction or to cease the practice of exceeding the monthly production limit is not shown to the satisfaction of the Minister, the Minister may issue an Order to shut in the well for a specified period of time, to be determined by the Minister.
- 10. Notwithstanding section 9 above, should the Minister consider overproduction, or the excess over the monthly production limit, from any well flagrantly excessive, he may require production figures to be submitted at the close of any month and, if necessary, may issue, an order to shut in the well for a specified period of time, to be determined by the Minister or take such other action as the Minister deems advisable.

APPENDIX II CONTENTS

PRODUCTION MAKE-UP, GAS MEASUREMENTS, UNIT OPERATIONS AND SUBMISSION REQUIREMENTS.

Make up of Production lost through shut down for Pressure Surveys, Interference Tests, Etc.

Exception from Monthly Gas Measurements.

General Policy re production allowables in Unitized Areas.

Application to Drill Off-Location Wells or Off-Pattern Wells.

Request for Allowables based on wider than Standard Spacing.

Application for Salt Water Disposal Well.

Application for Secondary Recovery.

Application for Dual Completion.

MAKE-UP OF PRODUCTION LOST THROUGH SHUT-DOWN FOR PRESSURE SURVEYS, INTERFERENCE TESTS, ETC.

The Department has agreed to the policy of allowing production losses, which occur from time to time due to the shutting in of producing wells to obtain vital reservoir data, to be made up by subsequent overproduction of the subject well or by transference of part or all of its allowable to another well or wells for a sufficient period to retire the lost production involved. This policy has been tested in operation for several months, during which time some administrative problems in accounting for the lost production have come to light. The Department staff now feel that the following rules should govern the handling of lost production make-up, to simplify the process from both the Departmental and, we hope, the operator viewpoint.

- 1. The authorized daily allowable or MPR will be transferred to other wells in the lease or pool only in the case of permanent pressure observation wells. In these instances, new MPR's for the transferree wells will be issued by the Reservoir Division. It is important to note here that the Statistical Division will prorate and transfer any accumulated overproduction or underproduction existing on the record of the transferror well at the time it is shut down, to the several transferree wells involved. Transferree well penalty factors will be used to adjust the new established MPR after the transfer is made.
- 2. In the case of wells shut in for either brief or extended periods, but not involving permanent shut-ins, for the purpose of reservoir pressure surveys, interference tests, bottom hole sampling, etc., the daily allowable or MPR will not be transferrable. However, the "lost production" due to shut-down for such purpose during any month may be carried over for make-up in the subsequent month or months (as may be agreed in scheduling with the Reservoir Division) by the subject well, or may be transferred by approved schedule as underproduction credit to other wells in the lease or reservoir. This "lost production" will be carried as an entirely separate credit from the normal 20%-of-monthly-MPR underproduction credit. However to compensate for removal of the shut-in period from normal statistical procedure, the monthly MPR for the month in which the shut-in occurred will be reduced by the number of days of shut-in for test, and the normal 20% underproduction allowable thereby reduced accordingly. Subsequent overproduction will be retired first by "lost production" credits and then by the balance of the normal 20% underproduction credits applicable to the well so as to eliminate "lost production" from the records at the earliest opportunity.
- 3. Notwithstanding rule 2 above, it must be understood that lost production credits for these special tests cannot exceed the allowable or capable production of the well for the shut-in period. That is, there will be an overriding consideration that such credits cannot exceed the product of (number of days shut in) times (adjusted daily MPR) or if the well does not produce its normal allowable, times (a reasonable estimate of the average daily productivity of the well prior to shut-down) whichever may be the lesser amount.
- N.B. 4. Schedules of requested make-up of transfer of lost production should be submitted by the 15th of the following month, together with the regular company production report for the month involved, whenever possible. A further two week grace period to the end of that month will be allowed for such submissions, but beyond that period the Department may disallow the request.

To further simplify the matter of administering underproduction credits, the Department has prepared a form MR 204 "Notice of Survey", copies of which are available from the Department. In all instances where it is expected that underproduction credits will be subsequently requested, or where the survey program is felt to be of particular interest to the Department, we request that this form be submitted in duplicate to our Regina office prior to commencement of the program.

EXEMPTION FROM MONTHLY GAS MEASUREMENTS

Pursuant to subsection (2) of section 305 of the Regulations under The Oil and Gas Conservation Act established by O.C. No. 304/53 as amended, notice is hereby given to all operators that, effective on the first day of May, 1956, all producing wells, other than wells in the Lloydminster, Lone Rock, Birling, Waseca, Marsden, McLaren or Maidstone fields or in the Coleville Banff Pool, with a gas/oil ratio of 500 cubic feet per barrel or less may be exempted from making monthly gas production tests provided that:

1. On application, operators submit three consecutive monthly gas tests on form No. 189 for each eligible well accompanied by charts or letter explaining how tests

2. Satisfactory 24 hour test measurements of the gas production are made on each well and reported to the Department twice yearly in the months of May and

October.

3. Estimates of gas production are reported monthly on the basis of gas/oil ratios calculated from the actual 24 hour test measurements made in the months of May or October which ever may be applicable.

Group measurements of total gas will be required at all batteries unless the operator submits evidence to the Department that such measurements are unnecessary

or cannot be accurately performed.

Forms No. 189 may be obtained from the Department of Mineral Resources, Petroleum and Natural Gas Branch, Regina, Saskatchewan on request.

ALLOWABLES—UNIT OPERATION

The Department's general policy with respect to MPR's and restriction on production of oil following the formation of an oil unit operation under the unitization

provisions of The Oil and Gas Conservation Act may be stated as follows:

The Department, for the present and subject to the necessity for market proration, takes the position that once unitization has been effected in any pool it is not necessary to place restriction on production allowables. This assumption and policy approach is based upon the premise that unitization protects the equity interest in the pool and that the unit operator will exercise every prudence with respect to production methods so as to achieve maximum ultimate recovery to the benefit of all concerned. The Department may alter this policy from time to time depending upon circumstances.

APPLICATION TO DRILL OFF-LOCATION WELLS OR OFF-PATTERN WELLS

- 1. The application, for off-pattern or off-location shall indicate and include a A. description of the proposed location, a brief, with supporting facts and technical data to establish the reasons for desiring the location together with an application in the usual form for a licence to drill the well.
 - 2. If the Department considers that the application substantiates that the new location is required (a) by reason of a topographical feature or obstruction existing in the prescribed target area or (b) by reason of contours and isopach maps drawn based upon the prospective producing formation indicating that if such a well were drilled on the proper pattern it may result in a dry hole,— notice of such application will be published by the Department in *The Saskatchewan Gazette*. Such notice to indicate a reasonable period for other operators to examine the request and lodge comments with the Depart-
 - 3. If no objections in writing are submitted to the Department within the time set out in the notice, the application may be approved subject to such penalties in respect to the production allowable for the well as may be applicable pursuant to the Act or the Regulations, provisions or orders issued thereunder.
 - 4. If any such objection is received prior to the date set out in the notice or in the event that the Minister deems it necessary or advisable for any reason, the Department will arrange to hold an inquiry to consider the application.
 - 5. The applicant should have copies of his application and supporting material available for distribution to any owner or operator who may be affected thereby.

1. The submissions to be forwarded in five copies to the Department. B.

- 2. Submissions are to be in written and illustrated form and appropriately
- 3. The applicant will provide additional copies to owners or operators directly affected upon request.

SUGGESTED SUBMISSION DATA REQUESTING ALLOWABLES BASED ON WIDER-THAN-STANDARD SPACING

1. Performance history, complete with production history chart.

2. Well productivity data (including P.I.'s)

3. Map of an area in question showing all drilled wells and their present status (producing, abandoned, etc.)

- 4. Static bottom hole pressure survey data, including pressure build-up test data and illustrative curves.
- 5. Rock and fluid characteristics data.
- 6. Interference test data, including flowing bottom hole pressures and pressure charts, where possible showing that interference may be obtained in varying directions in different parts of the field.
- 7. Discourse on reservoir characteristics, including probable drive mechanisms.
- 8. Lithological cross section of the pool, based on a subsea datum.
- 9. Isopachous map of the pool involved.
- 10. Isopermeability map (horizontal perm.) of each pool involved, also indicating approximate field average vertical and radial permeability, from core analyses.
- 11. Discussion of effect of higher rates of production on ultimate recovery of oil, with regard to drive mechanisms and the possible coning of water or gas to the well bore, or rate-sensitivity of wells in the pool.
- 12. Sources of reference for methods used in calculating items such as pressure build-up curves, permeability from P.I., etc.
- 13. Any additional pertinent data.
- 14. Recommendations.
- B. N.B. 1. To be submitted in five copies to the Director of Petroleum and Natural Gas Branch.
 - 2. Submissions are to be written and illustrated and appropriately bound.
 - 3. The applicant will supply additional copies to owners or operators directly affected, upon request prior to or upon the date of inquiry.

SUBMISSION REQUIREMENTS FOR APPLICATION FOR SALT WATER DISPOSAL WELL

- A. 1. Location and co-ordinates of proposed disposal well.
 - 2. History of the well if such well is to be recompleted or converted.
 - 3. General discussion of the geology in the vicinity of the proposed disposal well including a geological cross-section of the pool and the well in question.
 - 4. General discussion of completion practice with respect to producing wells in the area.
 - 5. A contour map on the top of the injection sand or injection formation showing all oil and gas wells and dry holes within one mile of the proposed injection well.
 - 6. A discusson of the zone from which wells in the area are producing or have produced giving the reservoir characteristics of the zone.
 - 7. Depth within formation, of the zone into which the water is to be injected.
 - 8. Casing description and the completion method for the proposed disposal well.
 - 9. Diagrammatic sketch or sketches showing surface equipment, including well-head, piping arrangement, method of cleaning or chemical treatment of salt water, together with the method of measuring water for disposal.
 - 10. Description of the fluid to be injected including analyses, its origin, estimated total daily amount to be injected and other information incidental to the fluid being disposed of.
 - 11. An indication as to whether gravity or pressure injection will be required.
 - 12. An indication whether the injection well is to be used by companies other than the applicant.
 - 13. An indication of whether other interested parties have been contacted and their reactions to proposal.
 - 14. The submission to be signed by an officer of the company making the application.
- B. 1. The submissions to be forwarded in five copies to the Department.
 - 2. Submissions are to be in written and illustrated form and appropriately bound.
 - 3. The applicant will provide additional copies to owners or operators directly affected upon request.

TO: ALL OPERATORS IN SASKATCHEWAN

RE: Suggested Submission Data on Application for Approval of Secondary Recovery or Pressure Maintenance Scheme.

- A. 1. Location and co-ordinates of proposed intake and source wells.
 - 2. The name, geological description and depth of the zone to be flooded.
 - 3. History of wells to be recompleted or converted.
 - 4. Casing description and cross section showing completion method for both the proposed injection and source wells.
 - 5. General comments on the geology in the vicinity of the proposed intake wells plus a geological cross section of the pool including the proposed injection wells.
 - 6. A brief review of the completion practice with respect to producing wells in the area.
 - 7. A contour map on the top of the injection horizon showing all oil and gas wells and dry holes within one mile of the proposed injection well.
 - 8. General comments on the zone from which wells in the area are producing or have produced giving the reservoir characteristics of the zone, pressure decline history, and apparent need for proposed action.
 - 9. Diagrammatic sketch or sketches showing surface injection equipment, including wellhead, piping arrangement, pumps, storage pits or tanks and method of cleaning or chemical treatment of source water before injection, and metering arrangements.
 - 10. Description of the fluid to be injected, including analysis, its origin, and estimated total daily amount to be injected.
 - 11. Pertinent data from bottom hole fluid analysis, including the bubble point, viscosity data, and bottom hole temperature, etc.
 - 12. An indication of what pressure may be required for injection and method of injection.
 - 13. General report on studies already made and an estimate of possible success of such a project, including any estimates which may have been made on the recovery factor improvement expected from the proposed injection.
 - 14. An indication of the extent to which other interested parties have been advised of the plan and their response to proposal.
 - 15. Submission to be signed by an officer of the company making the application.
- B. N.B. 1. The submissions to be forwarded in five copies to the Department.
 - 2. Submissions are to be in written and illustrated form and appropriately bound.
 - 3. The applicant will provide additional copies to owners or operators directly affected upon request, prior to or upon the date of inquiry.

DUAL COMPLETION

This memorandum combines memoranda issued October 29, 1956, and February 8, 1957, regarding policy and submission requirements of the Department of Mineral Resources for the dual completion of wells.

PART I

Dual completion of wells to obtain production from two separate reservoirs by natural or artificial lifting methods, or a combination thereof, will be approved on a permanent basis with no limitation on the number of wells so completed by one operator for any field or area subject to compliance with the following equipment requirements:

An approved production packer is to be set between the two producing zones in such a manner as to fully isolate one zone from the other during all production operations.

The lower producing horizon is to be produced through a continuous tubing string extending from below the production packer to surface.

The upper producing horizon is to be produced through a parallel tubing string.

An approved well-head of a type which allows independent suspension and packing of the tubing shall be used when dual production is obtained by means of parallel tubing strings.

Artificial lifting equipment shall be so installed that independent monthly production proration tests may be taken on each zone.

All tubing is to be of sufficient size to allow the free passage of the bottom hole pressure gauge.

Where the upper producing horizon will flow its production to surface, the Minister may allow the production of the upper zone through the annular space between the casing and the production tubing for the lower production horizon, in which case the following equipment will be required:

- (a) an approved side door choke shall be placed in the tubing string above the production packer and
- (b) an approved offset casing-head shall be used when the side door choke under subsection (a) above is not practical.

Subject to Minister's approval to the contrary, wells drilled subsequent to February 8th, 1957, must be cased with 65% inch or larger production casing to be eligible for completion with dual tubing strings under these provisions.

PART II

Dual completion by methods other than those outlined above will be limited to one completion per company per pool.

Temporary approval for a period of one year will be granted for the purpose of proving the reliability of the dual production equipment. The Department may, upon written application, give permanent approval to the application and permit further completions of the same type within the pool.

APPLICATION PART I & II

Application for dual completion in quadruplicate, shall include:

- 1. Results of a production test on each zone showing gas-oil ratios and water-oil ratios where similar information is not available from off-setting wells.
- 2. Electrical log, or geological cross section showing producing zones, perforated intervals and packer settings.
- 3. A descriptive diagram of the equipment to be used and the testing program proposed to prove segregation of the two producing horizons and their production.
- 4. A brief outline of proposed segregation during workovers or repairs.
- 5. Provisions for bottom hole pressure tests.

Upon receipt of an application, copies of which may be obtained from the applicant, the Department shall post a public notice stating that in the absence of valid objections the application may be approved.

If objections are received, or if the Department questions the advisability of the proposal, an inquiry may be held before a decision on the application is reached.

GENERAL CONDITIONS PART I & II

Approval of an application for dual completion will be forwarded in writing to the applicant and will be subject to the following provisions:

- (a) a satisfactory test for segregation of the two pools must be witnessed by a Department representative on installation of dual production equipment;
- (b) proof of complete segregation must be made by the owner or operator and witnessed by a Department representative at least once every year or at any other time the Department may consider it necessary during the life of the well as a dual producer;
- (c) notification must be forwarded to the nearest field office of the Department prior to removal or reinstallation of any subsurface dual production equipment; and
- (d) on re-installing such subsurface equipment a segregation test must be witnessed by a Department representative.
- (e) a written report on the results of each segregation test shall be submitted in duplicate to the nearest Department field office.

If at any time the Department finds the dual production equipment in any well inadequate, the Minister may cancel approval to dually produce from more than one zone in the said well.

APPENDIX III CONTENTS

Drilling, Producing, Testing, Transportation and Purchasing Forms

Application for Licence to Operate a Drilling Rig.

Application for a Licence to Operate Casing Puller, Service Rig.

Schedule of Deposits.

Application for Licence to Drill a New Well.

Well Completion Data.

Application for M.P.R.—Oil.

New Well Report.

Application to Plug Back or Abandon a Producing Well.

Application to Commingle Production Before Measurement.

Application to Amend Approval to Commingle Production Before Measurement.

Request for Permission to Conduct Second, Third, Etc. Production Test.

Application to Change a Well Name.

Notice of Survey.

Application for Licence to Drill Structure Test Holes.

Report on Abandonment of Structure Test Holes.

Data for Back Pressure Test on Natural Gas Wells.

Application for Daily Allowables—Gas.

Gas Use Permit.

Battery Test Data.

Monthly Proration and Production Report.

Monthly Disposition Report and Crown Royalty Statement.

Monthly Disposition Report—Crown Royalty Statement. (Lloydminster Area).

Monthly Purchasers Report.

Crude Oil Pipeline and Transportation Statement.

Monthly Gas Transporters and Distributors Report.

Monthly Report of Water Receipts and Disposition.



Petroleum & Natural Gas Branch

Regina, Saskatchewan

APPLICATION FOR LICENCE TO OPERATE A DRILLING RIG

| This application in TRIPLICATE | accompanied by the requ | uired licence fee | (\$25.00) must | be sub |
|--------------------------------|-------------------------|-------------------|----------------|--------|
| mitted and approved before cor | nmencing operations. | | | |

| In compliance with Section 19 of the Regulations under The Oil and Gas Conservation Act, 1953, application is hereby made for a Licence to Operate Drilling Equipment hereby designated as |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |
| Application made by— |
| (Insert name of applicant person, company, or syndicate) |
| (Registered address of applicant) |
| Responsible Agent of Applicant |
| (Name) |
| (Address of agent) |
| Signed by(To be signed by applicant or his duly delegated representative) |
| LICENCE TO OPERATE DRILLING EQUIPMENT |
| A licence to operate equipment designated above is hereby granted to |
| Name |
| Registered address |
| Under Licence No. |
| This licence expires March 31, 19 |
| Approved Approved |
| Petroleum Lands Division Petroleum Development Division Form MR-38 |

Petroleum & Natural Gas Branch

Regina, Saskatchewan

APPLICATION FOR A LICENCE TO OPERATE $\frac{\text{CASING-PULLER}}{\text{SERVICE RIG}}$

This application in TRIPLICATE accompanied by the required licence fee (\$25.00) must be submitted and approved before commencing operations.

| In compliance with Section 20 of the Regulations under The Oil and Gas Conservation Act, 1953, application is hereby made for a licence to operate Casing-Puller or Service Rig hereby designated |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| as(Insert name and number under which rig will operate) |
| Application made by— |
| (Insert name of applicant person, company, or syndicate) |
| (Registered address of applicant) |
| Responsible Agent of Applicant |
| (Name) |
| (Address of agent) |
| Signed by (To be signed by applicant or his duly delegated representative) |
| Licence to Operate Casing-Puller or Service Rig |
| A licence to operate equipment designated above is hereby granted to |
| Name |
| Registered address |
| Under Licence No. |
| This licence expires March 31, 19 |
| Approved Approved |
| Petroleum Lands Division Petroleum Development Division |
| Form MR-39 |

SCHEDULE OF DEPOSITS

(Section 22 of regulations under The Oil and Gas Conservation Act, 1953)

| | A | В | С | D |
|-----------------------------------------|----------------------------------------|-------------------------------------------------|--------------------------|----------------------------------------|
| Number of Licences or Wells | Wells Licences Wells Drilling | Wells Abandoned (no release from surface owner) | Core Hole Licences | Producin Wells Complete Wells |
| 1 | \$2,500 | \$1,000 | \$2,500 | \$1,000 |
| 2 | \$5,000 | \$2,000 | \$5,000 | \$2,000 |
| 3 | \$7,500 | \$3,000 | \$7,500 | \$3,000 |
| 4 | \$10,000 | \$4,000 | \$10,000 | \$4,000 |
| 5 | \$10,000 | \$5,000 | \$10,000 | \$5,000 |
| 6 | \$10,000 | \$6,000 | \$10,000 | \$6,000 |
| 7 | \$10,000 | \$7,000 | \$10,000 | \$7,000 |
| 8 | \$10,000 | \$8,000 | \$10,000 | \$8,000 |
| 9 | \$10,000 | \$9,000 | \$10,000 | \$9,000 |
| 10+ | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| Maximum | \$10,000 | \$10,000 | \$10,000 | \$10,000 |
| Combined maximum Required A, B, C | | | \$10,000 | |
| Combined maximum Required A, B, C, D | | | | \$20,000 |



Petroleum & Natural Gas Branch

Regina, Saskatchewan

APPLICATION FOR LICENCE TO DRILL NEW WELL

| This application in TRIPLICATE accompanied by the required licence fee, deposit, right of entry and three copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted and appropriate the copies of plan of certified survey must be submitted. | evidenc oved be | e of |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------|
| commencing operations. | . • | 1 |

Pursuant to the provisions of The Oil and Gas Conservation Act, 1953, and regulations and orders thereunder, application is hereby made for a licence to drill:

| Ву | | | and Mamper o | | | |
|--------------------------------|-----------------------------------------------------|----------------|--------------------|--------------------------------------|-------------------------------------------|-----------------------|
| , | (Insert name | and address of | Surface lo | npany, firm or indication: | ividuai) | |
| | 14 | 16 | | SecTwp | RgeW | . ofMer. |
| | | | feet | North of South South of North | th boundary | of |
| 12 | -11 | 9 | feet | East of West West of East | boundary of | |
| w | | E | Drainage | unit assigned t | o well | acres |
| 5 | - 6 - 7 | 8 | Minerals | leased from(Nar | ne of lessor) | |
| | _ 3 2 | 1 | Mineral le | ease or permit n | umber (if crown | land) |
| | ı i | Î | | | | |
| Coot wall i | S in correct legal subo | division | The eleva | ation of the \gr e sea level. \de | ound surface | is |
| Well is expected We propose to | d to produce fro | om | f | ormation at a d | epth of | feet. as indicated |
| below. | | | | | | Sacks of |
| Casing Size Inches | Weight Lbs./Ft. | Grade | Brand | Used | Estimated Depth | Cement |
| 1 | | | | | | |
| Well will be dri | illed with {Rot | ary) tools by | y | | | |
| | | | | itractor or Compan | | |
| Responsible age | ent of applicant | t : | | Addres | | |
| At registered Sa | askatchewan of | fice | | Addres | S | |
| It is understoo Dated at | d that ii chan | ges in this p | | day of | | 19 |
| | | | S | Igned by (To be signed by | duly authorized of t or by applicant p | ficer or agent of |
| | | | Drilling Li | | | |
| 2. Drilling ope | e does not grant erations to comi l office at | right of ent | ry. 190 days fr | om date of issu 24 hours of spu | LICENCE No eudding well. | |
| APPROVED: | | | | | | |
| Date of Issue: | | | | Petr | oleum Developme | nt Division |
| MR 46 | | | | ••••• | Petroleum Land | ls Division |



Petroleum & Natural Gas Branch

Regina, Saskatchewan

WELL COMPLETION DATA

(Submit 3 copies to Department within 25 days of rig release)

| Spudding Da | ate: T. Depth-Driller: | | |
|-----------------|------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date Finished | ed Drilling: -E-log | | |
| Date Rig Rel | eased: | Grd. Elev. | feet |
| Contractor: | | | feet |
| | | | B. to casing |
| Amount | Depth Set | Cement | Plug Backs |
| Subsea Depth | Markers/Con | | |
| | Producing Zo | ne: | |
| Open Pe | riod S.I.B.H. | ary) | Recovery Remarks |
| | Date Finished Date Rig Rel Amount Subsea Depth Tool Shu | Subsea Depth Markers/Con Producing Zo Tool Shut-in Open Period S.I.B.H. | Date Finished Drilling: Date Rig Released: Grd. Elev. K.B. Elev. Distance, K.I. flat Amount Depth Set Cement Subsea Depth Markers/Contacts Depth Producing Zone: Tool Shut-in Open Period S.I.B.H.P. F.B.H.P. tional list on separate sheet if necessary) |

| I RODUCTION DATA | | | |
|-----------------------------------------------------------------------------|-------------------------|--------------------------------|------------------------------------------------------------------------------------|
| Perforations or Screen Details: | | | |
| Perforated Interval From To Ty | pe Size | No. per Foot Screen Area Sl | or ots Results |
| Acidization, Liner washing, squ | ieeze jobs, or othe | er treatment: | |
| Intervals Cored Type From To % Recovery | Type From | % Recovery | Well Logs and/or Surveys Taken (including velocity surveys) No. Date Log or Survey |
| Core and Samples Forwarded to Abandonment Program | .0 | | |
| Operations Carried out by Plug No. Position | Geological Formation | Number of Sac Cement | |
| CERTIFICATION I hereby certify that the inform of my knowledge and belief. | nation and data s | shown above is co | mplete and correct to the best |
| Dated at | | | |

MR-5

Signed.....(Authorized Company Representative)

Government of the Province of Saskatchewan DEPARTMENT OF MINERAL RESOURCES Petroleum & Natural Gas Branch Regina, Saskatchewan, Canada

APPLICATION FOR M.P.R.-OIL

Prod. Horizon:

M.P.R. Calculations Applied to:

Well:

Location:

Field:

Name:

Interval:

| | | Producer | 's Calculation | Factors and Calculations |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------|-----------------------|--------------------------|
| Factors | Reference Well | Values used in this cal. | Values obtained from* | by Department |
| Av. Pay Thickness Av. Porosity Av. Interst. Water Av. Shrinkage Recovery Factor Expected Uniform Rate Life Assigned Acreage | T f = 10 C = 25 S = 75 R = 20 L = 10 years A = 40 acres | | | |
| Development Factor (FD) | | | _ | |
| Porosity Shrinkage Factor (F) | $PS) := \underbrace{(10)}_{}$ | (75) | (75) | |
| Recovery Life Factor (F_{RL}) : Acreage Factor $(F_A) := \frac{(40)^n}{n}$ | $-\frac{(20)}{(20)}\frac{(10)}{(10)}$ | | = | |
| Acreage Factor $(F_A) := \frac{(}{40}$ | <u>)</u> | | = | |
| M.P.R.—() () (| () () | | = | |
| Economic Allowance— | | | = | |

(Signature of Authorized Company Representative)

Reference well values of factors R and L will be used and not subject to revision for the first year of production.

Authorized M.P.R.

Authorized M.P.R.....B/D; Economic Allowance.....B/D (For Department Use Only) Date Effective..... REMARKS RECOMMENDED: APPROVED: CHECKED: Director of Pet. & Nat. Gas Reservoir Engineer Deputy Minister of Mineral Resources

Reference: Minister's Order published in The Saskatchewan Gazette dated Friday, December 30, 1955.

This form shall be submitted in TRIPLICATE to the Petroleum and Natural Gas Branch, Department of Mineral Resources, Regina, Saskatchewan

MR-66

^{*}Reference well values of factors T, f, C and S will be used unless revisions are substantiated by analyses submitted to the Department.



Government of the Province of Saskatchewan DEPARTMENT OF MINERAL RESOURCES Regina, Saskatchewan

NEW WELL REPORT FORM (1)

| Na = | me of V | vell | | | | | docation | | | | |
|---------|---------------------------------------------------|------------------------|--------------------------|-----------------------------------------------|--------------|---------------------------------------|------------------------|-----------------------------------------|---------|----------|--------|
| 1. | Field in | which w | vell is loca | ated | | · · · · · · · · · · · · · · · · · · · | | | | | |
| 2. | Pool be | ing prod | uced | | | | | | | | |
| 3. | Date of | well's fir | rst produ | ction from | above | pool (2) | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | |
| 4. | Comple | tion oil r | ecovered | prior to b | eing pla | aced on pr | oduction: | | | | |
| | So (n | ource of (ame of w | Completic vell or bat | on Oil etery) | | | er of Barre covered | els | | Dates | |
| • • • • | | | | | | | | | | | |
| | | | | | | | | | | , | |
| | | | | | | | | | | | |
| •••• | | | | | | | | | | | |
| | Total | recovere | d comple | tion oil (3) |) | | | | | | |
| | | |) | | | | | | | | |
| 6. | Test da | ta | | Bbls. | | 1 | G.O.R. | <u> </u> | 1 | <u> </u> | |
| | | | Choke | Clean | Clean Oil | Clean Gas Oil Prod. | C.F. | Water Prod. | Grav. | | sures |
| | Date | Hours | Strokes | Produced | B.P.D. | | Bbl. | Bbls. | °A.P.I. | C.H.P. | Т.Н.Р. |
| | | | | | | | | | | | |
| **** | | | | | | | | | | | |
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| | | | | | | | | | | | |
| | otal Test | _ | | | 1 | | | | | | |
| | od. | | | | | | | | | | ! |
| Se | e Revei | rse Side ion of (| for Inst | ructions (3) and (4) | and | | SIGNED O | N BEHALI | F OF: | | |
| | MAIL | Statistics | Division | , , , , , , , , , , , , , , , , , , , , | | | Address: | | | | |
| | F | Branch, | n and Nat | | HEOC. | | Per: | | | | |
| м | Department of Mineral Resources, Regina, Sask. | | | | | | Date: | | | | |

- (1) Submit in triplicate to the Statistics Division, Petroleum and Natural Gas Branch, Department of Mineral Resources, Regina, Saskatchewan; as follows:
 - (a) For a New Well—within 12 days following the date of first production.
 - (b) For Any Test Authorized on Form MR110 in Excess of the Well's M.P.R. or E.A., Subsequent to the Initial Production Test—on completion of the test. However, this report must not be submitted later than the Monthly Production Report covering production during the month of the test.
 - (c) FOR A PLUG-BACK TO A NEW PRODUCING ZONE—within 12 days following the date of first production from the new zone.
- (2) Date of First Production—shall be the day the well commences to produce new oil after recovery of all injected completion oil.
- (3) This total is to be carried forward to the Oil Disposition section of the MR 61 Monthly Disposition Report and Crown Royalty Statement.
- (4) The report is to be completed in full, except in case of the following:
 - (a) For tests authorized on Form MR 110, subsequent to the initial production test, only sections 1, 2, 5 and 6 need be completed.



DEPARTMENT OF MINERAL RESOURCES Petroleum and Natural Gas Branch

APPLICATION TO PLUG BACK/ABANDON A PRODUCING WELL (Strike out the one not applicable)

| Application as required lis hereby submitted for the f | ollowing pro | ogram of oper | ations to | be commenced on | or about the |
|---------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|-------------------------------------|-------------------------------------------------------------------------|------------------------------------------------|
| day of | | , 19 | , on the | Well known as | W. |
| located in thequa | rter of Lsd | Sec. | | rod in the name of | ,e vv • |
| ofMeridian, located | | | | | |
| | | | | | |
| | | Casing Recor | | C 1 C | Mathed |
| Size O.D. | Weight | Amount | Set | Sacks Cement | Method |
| 1st String | | | | | |
| 2nd String | | | | | |
| 3rd String | | | | | |
| | Condit | ion of Well (| Depths) | | |
| Total Depth of Well | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| Perforations: From | ., | То | | | |
| Open Hole: | | То | | | |
| Name of Producing Zone | | | | ., | |
| Date of last production | | | | | |
| Date of last production test | | | | G.O.R | |
| W.O.R | | Dai | ly Produ | ction | |
| Reason for Plug Back or Aba | | | | | |
| OUTLINE OF OPERATIONS PRO | | | | | |
| pulled; if Plug Back show ne | w interval t | o be perforate | ed): | | |
| | | | | | |
| | | | | | |
| Operations to be carried out | bv: | | | \ddress | |
| Responsible agent in field | | | ,, <i>.</i> | Address | |
| Responsible agent, Co. office. | | | | Address | |
| Signed by | | |] | Title | |
| Company | at | this | | day of | 19 |
| (For Department use only) | | 4 4 | | | |
| | | Approval | | | |
| This application has be | en examine | d and program | m of ope | rations approved, s | subject to the |
| following conditions: | | | | | |
| Approved— | Date | | | 19 | |
| •••• | | | | Engineer | ring Division |
| Forms to be prepared in TRIPL Saskatchewan. A new Well Conwork. In case of Plug Back a n | ICATE and f apletion Data new M.P.R. a | orwarded to that Form to be supplication mus | e Departn ubmitted st be subr | nent of Mineral Resov within 10 days of con nitted prior to produ | nrces, REGINA, apletion of this cing new zone. |

Government of the Province of Saskatchewan Department of Mineral Resources

APPLICATION TO COMMINGLE PRODUCTION BEFORE MEASUREMENT

| Application is herewith n | nade by | (Operator) | Address | , |
|-------------------------------------------------|------------------------------------------|------------------------|----------------------|-------------------------------------------------|
| for (Lessee) | | | | |
| listed below which produ | ce into the batter | y henceforth to | | Name of Battery) |
| located in(Lega | al Description) | in the | | field. |
| Battery operations are ex | spected to comme | nce in the mon | th of | 195 |
| Application to either add MR 218 and submitting | | | ells shall be made l | by completing Form |
| Well Name | Location | Crown or Private | Producing Zone | Minimum No. of production tests per month |
| | | | | |
| | | | | |
| | | | | |
| | | l I | | ! |
| Submitted on behalf of | (Name of Com | pany) | by | |
| | | Approval | | |
| This application is a | pproved, subject | to the following | g conditions: | |
| (1) Total battery of | l, gas and water | production mus | t be accurately me | asured. |
| (2) Oil, gas and wat | er produced on te | st must be accu | rately measured fo | r each well. |
| | oe tested for a per n at the normal p | | n the time required | to produce a normal |
| (4) Each well shall | be tested: | | | |
| (a) At least as | frequently as spec | cified by the De | epartment. | |
| | y following any cl nge in choke or s | | tion rate created b | y mechanical means, |
| Approved(Petrolo | eum Development) | Date | | |
| Approved(Pe | troleum Statistics) | Date | | |

Government of the Province of Saskatchewan Department of Mineral Resources

APPLICATION TO AMEND APPROVAL TO COMMINGLE PRODUCTION BEFORE MEASUREMENT

| Application is herewit | h made by | | | to amend the |
|-----------------------------------------------------|----------------------------------------|------------------------|-----------------------|-------------------------------------------|
| approval for | Z) | Name of Battery) | | ······································ |
| located in(Legal | Description) | in the | | field |
| by adding to, or removing | from, this batt | tery the wells li | sted below, comme | encing in the month |
| of19 | 95 | | | |
| Well Name | Location | Crown or Private | Producing Zone | Minimum No. of production tests per month |
| Wells to be Added: | | | | |
| Wells to be Removed: | | | | |
| Submitted on behalf of | | | by | |
| | | Approval | | |
| This application is app concerning frequency and | proved, subject t duration of tests | o the conditions | s listed on the origi | nal battery approval |
| Approved(Petroleus | m Development) | Date | | |
| Approved(Petro | oleum Statistics) | Date | | |

DEPARTMENT OF MINERAL RESOURCES Petroleum & Natural Gas Branch

REQUEST FOR PERMISSION TO CONDUCT A SECOND, THIRD, ETC., PRODUCTION TEST IN ADDITION TO THE INITIAL FIVE DAY TEST

In accordance with Section 322 (5) (c) and (d) of the Regulations under The Oil and Gas Conservation Act, 1952, the undersigned hereby makes application for permission to make a production test on the under-mentioned well at a rate in excess of the established or requested M.P.R. for a period beyond the nominal 5 days allowed by regulations.

| Well Name and No. |
|----------------------------------------------------------------------------------------------|
| Location |
| Battery Name and Number |
| Reasons for requested extension of test period; or for a second, third,th test: |
| |
| |
| |
| Brief outline of proposed program; indicating desired starting date, special equipment to be |
| used, length of test in days, etc. |
| |
| |
| Co. Engineer or Representative |
| for Company |
| Application approved with following provisions: |
| |
| |
| |
| Department Representative |

N.B.

- 1. To be submitted in quadruplicate to the Reservoir Division of the Department of Mineral Resources, Regina. The Department must authorize each extension and each test, prior to its commencement.
- 2. New well report form M.R. 63, must be submitted in triplicate to the Statistics Division, within seven days following each authorized production test period.



DEPARTMENT OF MINERAL RESOURCES Petroleum and Natural Gas Branch Regina, Saskatchewan

APPLICATION TO CHANGE A WELL NAME

| Well Location | L.S.D | of Sec | Twp | Rge. | W | Mer. | | |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------|---------------|-----------------------------------------|-----------------------------------------|---------------|--|--|
| Drilling Licence No |) <u></u> | Date | of Issue | | | | | |
| I hereby apply for permission to change the name of the well recorded in the Department's Official Well Name Register as: | | | | | | | | |
| | | (Old 1 | Name) | | • • • • • • • • • • • • • • • • • • • • | | | |
| to | | (New 1 | Name) | *************************************** | ••••• | | | |
| Reasons for Change | 5 • | | | | | | | |
| | | | | | | | | |
| | | | | | • • • • • • • • • • • • • • • • • • • • | | | |
| \$25.00 Application | | • | | | | | | |
| | | | | | | | | |
| | | | | (Sign | nature of Appl | icant) | | |
| | | | | *************************************** | (Title) | | | |
| Dated at | | this | | day of | | 195 | | |
| | | (For Departm | ent Use Only | 7) | | | | |
| | | Appr | oved | | | | | |
| This application name as requested a | | amined and ap | proval is her | reby granted | d for the ch | ange of well | | |
| (Petroleu | ım Development I | Division) | | (Petroleum La | nds Division) | | | |
| Date | • • • • • • • • • • • • • • • • • • • • | | Date | | | •• | | |
| Forms to be prepared | in TRIPLICATE | E and forwarded | to the Depart | tment of Min | eral Resourc | es. Petroleum | | |

and Natural Gas Branch, Regina, Sask.



NOTICE OF SURVEY

| Date19 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notice is hereby given that we expect the following well or wells: |
| |
| |
| |
| to be shut down for a period of approximatelydays during the month(s) of |
| for the purpose of obtaining additional reservoir data in the following |
| manner: |
| ······· |
| |
| |
| This is to advise, therefore, that we may, upon completion of the above program, submit for approval a schedule of underproduction credits to allow make-up of production lost due to the shutting in of the wells for this purpose. |
| |
| |
| |
| (Signature of authorized company representative) |



Petroleum & Natural Gas Branch

Regina, Saskatchewan

APPLICATION FOR LICENCE TO DRILL STRUCTURE TEST HOLES

| This application in quadruplicate accompanied by bond must be submitted and approved before com- | the required licence fees (\$10.00 imencing operations. | per hole) and |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------|
| Pursuant to the provisions of The Oil and Gas | Conservation Act, 1953, and reg | gulations and |
| orders thereunder, application is hereby made by. | | |
| (Insert name and address of applicar | nt company, firm, or individual) | |
| for permission to drill the following structure test | | |
| Name and Number | Location | Proposed Depth |
| | | |
| | | |
| | | • |
| | | • |
| | | |
| Casing program if any | | • • • • • • • • • • • • • • • • • • • • |
| | | |
| | | |
| | | |
| Responsible Ager | nt of Applicant | |
| At Well | Address | • • • • • • • • • • • • • • • • • • • • |
| At registered Saskatchewan office | Address | |
| It is understood that if changes in this plan be | come necessary we will promptl | y notify you. |
| Dated atthis | day of | 19 |
| | Signed by | |
| Drilling 1 | icanca | |
| | | ΣO |
| Provisions | 1 | |
| Approved: | Petroleum Developm | ent Division |
| Date of Issue: | Petroleum Lands | Division |
| MR 2 | | |



Petroleum & Natural Gas Branch

Regina, Saskatchewan

REPORT ON ABANDONMENT OF STRUCTURE TEST HOLES

(Two copies of this form to be forwarded to Department at address given above)

| autł | ority | e undersigned hereby reports the abandonment of structure test holes drilled under the of licence No |
|------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | bandoned |
| 1. | (2) | Name, Number and Location |
| | (5) | How plugged |
| | (6) | Electrologged by |
| 2. | (1) (2) (3) (4) | Name, Number and Location |
| | (5) | How plugged |
| | (6) | Electrologged by Date Abandoned |
| 3. | (1) (2) (3) (4) | Name, Number and Location Casing used T.D. of hole |
| | (5) | How plugged |
| | (6) | Electrologged by Date Abandoned |
| 4. | (1) (2) (3) (4) | Name, Number and Location |
| | (5) | How plugged |
| | | Electrologged by Date Abandoned |
| 5. | (1) (2) (3) (4) | and the state of t |
| | (5) | |
| | (6) | Electrologged by |

| Hol | les A | bandoned |
|-----|-------|---------------------------------------------|
| 6. | (1) | Name, Number and Location |
| | (2) | Casing used |
| | ` ′ | T.D. of hole |
| | (4) | Remarks on formations or fluids encountered |
| | . , | |

| (6) Electrologged by | | | T.D. of hole | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----------------------------------------|-----------------|
| (6) Electrologged by Date Abandoned. 7. (1) Name, Number and Location. (2) Casing used. (3) T.D. of hole. Drilled by (4) Remarks on formations or fluids encountered. (5) How plugged. (6) Electrologged by Date Abandoned. 8. (1) Name, Number and Location. (2) Casing used. (3) T.D. of hole. Drilled by. (4) Remarks on formations or fluids encountered. (5) How plugged. (6) Electrologged by Date Abandoned. 9. (1) Name, Number and Location. (2) Casing used. (3) T.D. of hole. Drilled by. (4) Remarks on formations or fluids encountered. (5) How plugged. (6) Electrologged by Date Abandoned. (7) Prilled by. (8) Remarks on formations or fluids encountered. (8) How plugged. (9) Prilled by. (1) Name, Number and Location. (2) Casing used. (3) T.D. of hole. Drilled by. (4) Name, Number and Location. (5) How plugged. (6) Electrologged by Date Abandoned. (8) T.D. of hole. Drilled by. (9) Date Abandoned. (10) Name, Number and Location. (21) Casing used. (32) T.D. of hole. Drilled by. | | (5) | How plugged | |
| (2) Casing used | | (6) | | |
| (3) T.D. of hole | 7. | (1) | Name, Number and Location | |
| (4) Remarks on formations or fluids encountered. (5) How plugged. (6) Electrologged by | | (2) | Casing used | |
| /5) How plugged | | | · · · · · · · · · · · · · · · · · · · | |
| (6) Electrologged by | | (4) | | |
| (6) Electrologged by | | (5) | | |
| 8. (1) Name, Number and Location (2) Casing used (3) T.D. of hole | | | | |
| (2) Casing used | | (6) | Electrologged by | .Date Abandoned |
| (3) T.D. of hole | 8. | (1) | Name, Number and Location | |
| (4) Remarks on formations or fluids encountered (5) How plugged (6) Electrologged by | | (2) | Casing used | |
| (5) How plugged | | | | |
| (5) How plugged | | (4) | | |
| (6) Electrologged by | | (5) | | |
| 9. (1) Name, Number and Location | | | | |
| (2) Casing used (3) T.D. of hole | | (6) | Electrologged by | Date Abandoned |
| (3) T.D. of hole | 9. | (1) | Name, Number and Location | |
| (3) T.D. of hole | | ` ' | Casing used | |
| (5) How plugged | | | T.D. of hole | |
| (5) How plugged | | (4) | | |
| (6) Electrologged by | | (5) | | |
| 10. (1) Name, Number and Location | | (-) | • • • • • • • • • • • • • • • • • • • • | |
| (2) Casing used | | (6) | Electrologged by | Date Abandoned |
| (3) T.D. of hole | 10. | (1) | Name, Number and Location | |
| · | | (2) | Casing used | |
| (A) D 1 C C1 11 | | | • | |
| (4) Remarks on formations or fluids encountered | | (4) | | |
| (5) How plugged | | (5) | | |

| (0) | 110% pragged | | | |
|----------|------------------|--------|----|--|
| (6) | Electrologged by | | | |
| Dated at | this | day of | 19 | |

| |
|-----------|
| Signed by |

| Title | | | |
|-------------------|------------------|---------------|-------------|
| (Licencee or duly | authorized offic | er or agent o | f licencee) |



DEPARTMENT OF MINERAL RESOURCES Petroleum and Natural Gas Branch

DATA FOR BACK PRESSURE TEST ON NATURAL GAS WELL

| Well | | | G | Sp. Gr. of Gas (G) GL | | | | | | |
|---------|-----------------------------------------------|-----------------------------|------------------------------------------------|------------------------------------------------|------------------------------|--------------------------------------------|------------------|-----------------------------------------|-----------------------------|----------------------|
| | | | | | 5 R | ottom Hole | ead Pres | 8 | | psi. |
| | | | Sand Bott | | Т | op Hole Ter | nn nn | | | ∘F |
| | | | d Bottom) | | | arometer | | | | psia. |
| Casing | diameter | 2 | ins.; | Set at | .ft E | Producing for Date of Test. | mation | | | ******* |
| Casing | weight | inc | ;Set | a t | ft 1 | erforated In No. of Shots/ | | | | |
| Tubing | size | 1115. | , | | | URE TEST D | | | | |
| | | W. H. | | ver | | ement Data on | | | | |
| Readi | | Press. Psig. | | ess. | Orifice | Coefficient | PR ' | rr Fpv | Temp | o. °F. |
| 1 | | | | | | | | | | |
| 2 | | | | | | ****************** | | | | ****** |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | 6 F1 | | | CD E | 1 | | | |
| Calcul | lation of | Kate | s of Flow | • | Q = | $= \frac{\text{CP Fpv}}{\sqrt{\text{GT}}}$ | | | | |
| | | | | | | V | | | | Mcf/d |
| ~ | | | | | | V | | | | Mcf/d |
| 3. Q = | = , | ×. | | . × | ÷ 1 | √ <u></u> | . × | | | Mcf/d |
| | | | | | | V | | | | Mcf/d |
| 5. Q= | ************************************** | ×. | | .× | ÷ 1 | V | . × | = | | Mcf/d |
| | | Press. | | | Pres | SURES | | | Press. | Back Press. |
| Reading | Shut-in Wellhead Pressure psia. (Pc) | of Gas column psi. | Shut-in Formation Pressure psia. (Pf) | Working Press. at Wellhead psia. (Pw) | | $R = \sqrt{P_1^2 - P_1}$ | Press. drop psi. | Pw Plus Press. drop psia. (P1) | of Gas column psi. | sand psia (Ps) |
| | psia. (1 c/ | psi. | psia. (11) | psia. (1 w) | 0.24 | | | | To | |
| 2 | | | | | | | | | } | |
| 2 | | | | | | | | | | |
| 4 | | | | | | *************************************** | 1 | | } | |
| 4 | | ********** | | | | | | | | |
| 0 | | | | Pro | TTING DATA | | | | | |
| | | | P_f^2 | 7.50 | | P_{f^2} | -Ps ² | _ | 0 | |
| Rea | ading | | l'housands | Т | Ps ² Thousands | A | sands | 1 | Mcf/day | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | *************************************** | | | | | | | 1 | | |
| Absolu | ite Oper | Flov | v = | | | | | | | |
| REMAR | | | | | | . 5 | | 1.0 | D | |
| Forms t | to be prep tural Gas | ared in Brancl | n DUPLICA h, Regina, S | TE and for Saskatchev | warded to t wan. | he Departme | nt of Min | eral Kesou | rces, Pet | MP 97 |

Form MR-37

Government of the Province of Saskatchewan DEPARTMENT OF MINERAL RESOURCES Petroleum & Natural Gas Branch Regina, Saskatchewan, Canada

APPLICATION FOR A REVISED/A NEW WELL DAILY ALLOWABLE—GAS

(Strike out the one not applicable)

| | | Date | |
|----------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------|----------------------------------------------------------------------------|
| D.A. Application for: | Well: Location: Field: Pool: Prod. Horizon: | Name: Interval: | |
| To be Filled in by Op | ERATOR | | |
| | f test— ed potential open flow | | Mcf/day. |
| | ed drainage unit orMcf/day | | |
| 4. †Supplementary | • | • | |
| 5. (Check which ☐ P. & N.G. 1 ☐ P. & N.G. | is applicable) rights in assigned drai | _ | d. n accordance with agreement or |
| *Must be substantiated by to †Include here comments on con establishment of the D.A. | condition of well, workover | ed. jobs, reservoir charact | Authorized Company Representative eristics, etc., which might have bearing |
| To be Filled in by Di | EPARTMENT | | |
| Test data (a) Date of te (b) Method o (c) Estimated | | capacity | .Mcf/day. |
| 2. Remarks: | | | |
| | A41a | orized D.A. | |
| (For Department use or | | | .AMcf/day. |
| (1 of Department doe of | ,,,, | | e: |
| CHECKED: | RECOMMEN | | APPROVED: |
| Reservoir Engineer | Director Pe | t. & Nat. Gas | Deputy Minister of Mineral Resources |

This form to be submitted in TRIPLICATE to the Petroleum and Natural Gas Branch, Department of Mineral Resources, Regina, Saskatchewan.

MR 141

DEPARTMENT OF MINERAL RESOURCES The Oil and Gas Conservation Act) (Section 55)

| Gas | Permit | No. |
|------|------------|-------|
| Cius | T CITILITY | ± 1 0 |

GAS USE PERMIT

| | Subject to the conditions star | ted hereunder, permi | ssion is hereby granted u | nto |
|-------|---------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------|--------------------|
| | | (Company Nam | e) | |
| of | (Address) | to use, consume | and dispose of natural g | as produced from |
| the | (Producing Formation) | (Oil or Gas) | wells owned by the | e said company in |
| the | (Pool) | ol of the | (Field) | field for the |
| follo | owing purposes: | | | |
| | 1. | | | |
| | 2. | | | |
| | 3. | | | |
| | 4. | | | |
| Cor | NDITIONS | | | |
| | The permittee shall com- consumption and dispose | | | me affect the use, |
| | 2. This permit will be subj natural gas to any of the to represent physical wa Industry. | purposes outlined ab | time to time, with respe- ove, which may be deeme ordinarily understood by | ed by the Minister |
| | 3. | | | |
| | 4. | | | |
| | This permit is granted for a | period of | years from date of | issue. |
| Pro | Dated the vince of Saskatchewan. | day of | at the City | of Regina, in the |
| | Witness | | Deputy Minister of Minera | l Resources |

MR-148

Government of the Province of Saskatchewan Department of Mineral Resources

Regina, Saskatchewan

For Month of.....

Name of Battery.....

BATTERY TEST DATA

| Changes in Producing | (Size of choke, pump, stroke, etc.) | |
|----------------------|---------------------------------------------------------------------------------|--|
| Water | Production Rate Production Rate Bbls. Bbls./hr. Mscf. Mscf./hr. Bbls. Bbls./hr. | |
| Gas | Production Rate Mscf. Mscf./hr | |
| lio | Production Rate Bbls. Bbls./hr. | |
| | Separator Pressure P.S.I.G. | |
| Duration | of Test (hrs.) | |
| | Date of Test | |
| | Well Name | |

Complete in duplicate and forward to Statistics Division, Petroleum and Natural Gas Branch, Department of Mineral, Resources, Regina, Sask.

Certified that the above tests conducted by an authorized representative of this Company, were properly taken and correctly reported.

(Signature)

| MONTHLY PRORATION | FKUK | ALION | | AIN I NODOGOTI ON THE | | | | | | | | | | | 1 | |
|-------------------|---------|-------------------------|-------|-----------------------|----------|-----------------------------|------|--------|--------------------|---------|-------------------|------------------|----------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Тн | BORETIC | THEORETICAL, PRODUCTION | TION | | | | | ACTUAL | ACTUAL, PRODUCTION | TION | CRE | CREDITS | | CROWN | | |
| Clean Oil (Bbls.) | 1 1 | Gas (M.S.C.F.) | Water | Water (Bbls.) | | | | Clean | Gas | Water | t | } | Aver. | Composite | | For |
| Amount | t Rate | Amount | Rate | Amount | WELL NA | Well, Name(s) and Number(s) | | | (M.S.C.F.) | (Bbls.) | Gas (M.S.C.F.) | Water (Bbls.) | Sep. Press. | % | DEPA | DEPARTMENT |
| | | | | | Dottoere | Actual Production | on | | | | | | (Lbs.) | (Bbls.) | 0 | NI,Y |
| | XXXX | | XXXX | | Totals | Prorated Production | tion | | | | | | XXXX | | The state of the s | |
| | | | | | | I | Days | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M.P.R. |
| | | | | | | | | | | | | | | | W.O.R. | Allowable |
| | | | | | | | | | | | | | | | G.O.R. | M P.R. |
| | | | | | Ana | | | | | | | | | | W.O.R. | Allowable |



Government of the Province of Saskatchewan DEPARTMENT OF MINERAL RESOURCES

MONTHLY DISPOSITION REPORT AND CROWN ROYALTY STATEMENT

| Report of | | | | | | | |
|----------------------------------------------------------------------------|------------------|------------------------|---------------------------------|---------------------------------|-------------------|---------------------------------------|-----------------------|
| For (Lessee) | | | | | | | |
| Battery/Well | Loca | tion | | | Field | | |
| Oil Disposition—Bbls. Clean Oil Production | | | | | Crov | wn Royal | ty Share Bbls. |
| Opening Inventory Circulation Oil Recovered (Other Oil Receipts (2) | 1) | | | | | | |
| Deduct Closing Inventory TOTAL OIL | Sub-Total | | | | XXX | XX | |
| Sales—Market | Point of Sale | A.P.I. Gravity | Price Per Bbl. | Net Barrels | Value of Sales | Transp. Charges | Net Value of Sales |
| | | | | | | | |
| Sales—Other | TOTAL | SALES—I | MARKET | | \$ | \$ | . \$ |
| | | | | | | | |
| T (2 1 1 / 2 2 2 11) (2 | GRA | al Sales- and Total | | | \$ | \$ | \$ |
| Transfers to (own wells) (3 | | | | A | verage Ne | t Value pe | er Barrel |
| Other Disposition (4) | | | | | | | |
| Total Transfi Other Dispo | ERS AND SITION | | | | \$ | | |
| TOTAL OIL DIS | POSITION | | | | | | |
| BATTERY/WELL SHARE OF FROM PROCESSING PLANT | Proceeds \$ | Ga | s Produc Other Re | ceipts (5) | | | |
| Absorption Gasoline Other Liquid Products Sulphur Other Products | | To To | red and Injection Gas Gat | Waste n System thering Sy | ystem | | |
| | | | | |) | | |
| Total Value to Battery/Well | | | Тот | AL GAS D | ISPOSITION | · · · · · · · · · · · · · · · · · · · | |
| Water Disposition—Bbls Water Production | | То | Disposa | l System | (Name) | | |
| Opening Inventory Sub-Total Closing Inventory | | | Non-Cred | litable | | | |
| , Total Water for Disposal | | | Тот | AL WATE | R DISPOSIT | TION | |

| Oil— Crown Share for Disposal Deductions (7) | | Bbls. | | age Net per Bbl. | | Crown Royalty |
|-----------------------------------------------------------------------------|--------------|--------------|-------|---------------------|---------|------------------|
| Net Crown Royalty Share | | | \$ | | \$_ | |
| Gas— | M.S.C.F. | Rate | V | alue | % | |
| Processed Products Natural Gas Sales Residue Gas Sales Other Disposition | | | | | \$_ | |
| | | | | | | |
| Remarks and Details of Entries (1) | to (7)—(Cont | inue other s | side) | Certifi | ED CORR | ECT |
| | | | | | | |
| | | | | Date _ | | |
| | | |) | | | |

Government of the Province of Saskatchewan DEPARTMENT OF MINERAL RESOURCES

MONTHLY PRODUCTION AND DISPOSITION REPORT—CROWN ROYALTY STATEMENT

(Lloydminster Area)

| Report of | | | Addres | S | | |
|-------------------------------------------------------------------------------|--------------------|-------------------------------|----------------|-------------------|--------------------|-----------------------|
| For (Lessee) | | | Month | of | ************** | 195 |
| Well | | Field | | | | |
| Location | Pool | | Cro | W11 | Privat | e |
| Calculated Production | | | | | | |
| OilBbls. Gas | MSCF | . Water | Bbls. | Days o | n Product | tion |
| Summary of Total Fluid | l—Bbls. | | | Depar | tment U | se |
| Add Closing Inventory Add Tank Cleanings | 2)+(8)or Disposal. | | _ G(| OR PR | | |
| Oil Disposition—Bbls. | | | Cı | own Roy | alty Sha | re |
| Calculated Clean Oil Produ Circulation Oil Recovered Other Receipts (2) | (1) | | _ | | % | Bbls. |
| Sales—Market | Point of Sale | A.P.I. Price Gravity Per Bbl. | Net Barrels | Value of Sales | Transp. Charges | Net Value of Sales |
| | Total S | ALES-MARKET | | \$ | \$ | \$ |
| Sales—Other | | | | | | |
| | TOTAL | SALES—OTHER | | | .] | |
| T (| | | | | | \$ |
| Transfers to (Own Wells) (Other Disposition (4) | | | Av | rerage Ne | t Value pe | n barrer |
| Total Transfi Other Dispo | ERS AND | | | \$ | | |
| TOTAL OIL DIS | POSITION | | | | | |

| Gas Disposition—MSCF | | | | | | |
|-------------------------------------------------------------------------------------------------------------------|----------------|--------------|-------|------------------------|--------|------------------|
| Calculated Gas Production Other Receipts (5) | | | | | | |
| TOTAL GAS FOR DISPOS | AL | | | | | |
| Flared and Waste | | | | | | |
| Water Disposition—Bbls. | | | | | - | |
| Calculated Water Production Other Receipts (8) TOTAL WATER FOR DIS | | | | | | |
| To Disposal System— Creditable (Name) Non-Creditable (Name) Other Disposition—To Refinery or Total Water Disposit | · Cleaning Pla | nt | | | | |
| Crown Royalty Share for Month | h | Bbls. | | rage Net e per Bbl. | | Crown Royalty |
| Crown Share for Disposal Deductions (7) Net Crown Royalty Share | | | | | 4 | \$ |
| C | M.S.C.F. | Rate | , | Value | % | |
| Gas— Natural Gas Sales Other Disposition TOTAL CROWN ROYALT | | | | @ | 4 | \$ |
| Remarks and Details of Entries (1) | to (8)—(Cont | inue other s | side) | CERTIFI | ed Cor | RECT |
| | | | | Date _ | | |

Government of the Province of Saskatchewan DEPARTMENT OF MINERAL RESOURCES Regina, Saskatchewan

MONTHLY PURCHASERS REPORT

Crude Oil Receipts:

...Plant,... Location of Refinery or Address for Service...... Name of Purchaser....

....19 Month of....

(All Figures in Barrels of 35 Imperial Gallons)

| Source of Crude (Field or Pool) | Producing Company (Name) | A.P.I. Gravity | Transportation (from well via) | Total Receipts | Opening Inventory | Total Supply | Storage Loss or Gain | Closing Inventory | Quantity | Average Price Bbl. F.O.B. Ref. |
|------------------------------------|--------------------------|-------------------|-----------------------------------|-------------------|----------------------|-----------------|----------------------------|----------------------|----------|--------------------------------------|
| | | | | | | | | | | |
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| BURNDING PRODUCTS | | | | | | | | | | |
| | | , | | | , | | 1 | | 1 | |
| | Total | | | | | | | | | |
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Monthly Purchasers Report—Continued

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| Ifem | Total Production | Transfers from/to Other Refineries | Opening Inventory | Total Supply | Closing Inventory | Refinery Fuel Consumption | Refinery Losses and Adjustments | Total Sales | Total Sales in Saskatchewan | Total Shipments to Other Provinces |
| | | | | | | | | | | |
| NAPHTHA SPECIALTIES | | | | | | | | | | |
| AVIATION GASOLINE | | | | | | | | | | |
| Motor Gasoline | | | | | | | | | | |
| Tractor Fuel. | | | | | | | | | | |
| AVIATOR TURBINE FUEL. | | | | | | | | | | |
| KEROSENE | | | | | | | | | | |
| STOVE OL, (No. 1 Fuel Oil) | | | | | | | | | | |
| DIESEL FUEL | | | | | | | | | | |
| FURNACE OIL. | | | | | | | | | | |
| Отнев Цібнт Риед, Оц. | | | | | | | | | | |
| HEAVY FUEL OIL | | | | | | | | | | |
| BUNKER FUEL OU. | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Unfinished Products | | | | | | | | | | |
| SUB TOTAL | | | | | | | | | | |
| LIQUEFIED PETROLEUM GAS | ; | : | | : | | | | | | |
| POLYMER FEED STOCKS | : | | | | | | | | | |
| ASPHALT | | | | : | | | | | | |
| Сокв | | | | | | | | | | |
| LUBRICATING OIL | | | | | | | | | | |
| GREASE | | | | | | | | | | |
| SOLVENT | | | | | | | | | | |
| OTHER PRODUCTS. | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Tonat | | | | 4 | | | | | | |
| The state of the s | | | | | - | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 1 2 /4/4 | (1) | 11.1.1 |

This is the report required by Sections 114(7), and 115(1) of the "Regulations Under The Oil and Gas Conservation Act."

One copy of this form is to be completed and forwarded to the Statistics Division, Petroleum and Natural Gas Branch, Department of Mineral Resources, Regina, Sask., not later than the 15th of the month following that which the statement covers.

CRUDE OIL PIPELINE & TRANSPORTATION STATEMENT

| | Address for Service | Month of19 | Quantity Sold | Bbls. To: | |
|----------------------------------------------------------------------------|---------------------------------------------|------------|---------------|---------------------------|--------|
| | | | Closing | Bbls. | |
| | | | | Adjustments | |
| Name of Company | | | Total | Suppry Bbls. | |
| Name of | Address fo | | Opening | Inventory Bbls. | |
| | | | Total | Receipts Bbls. | |
| ce of Saskatchewan RAL RESOURCES | vision chewan | | | (Name of Company) | TOTAL: |
| Government of the Province of Saskatchewan Department of Mineral Resources | Statistics Division Regina, Saskatchewan | | | (Field, Pool or Pipeline) | |

MONTHLY GAS TRANSPORTER'S AND DISTRIBUTOR'S REPORT

|--|

Government of the Province of Saskatchewan Department of Mineral Resources

MONTHLY REPORT OF WATER RECEIPTS AND DISPOSITION

| Report of | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-----------------------------------------|-------------------------|-----------|-----------------------------------------|---------|------|--|--|--|--|--|--|
| | | Month of | | | | | | | | | | |
| Field | | | Receiving | ******* | | | | | | | | |
| Date of First Injection | | | | | | | | | | | | |
| Water Receipts—Bbls. (a) Pressure Maintenance From Batteries— List individual an | | | | b-totals | | | | | | | | |
| List battery amo | unts for nor | n-creditable | receipts | | | | | | | | | |
| From Single Wells—I | list individu | ial well amo | unts | | | | | | | | | |
| (b) DISPOSAL WELL OR SYSTE From Batteries—List From Single Wells—I | battery tot | als | | | | | | | | | | |
| | | FOR DEPARTMENT USE ONLY | | | | | | | | | | |
| The Determinant Well and the second | (1) | (2) | (3) | (4) Water | Penalty | | | | | | | |
| List Battery or Well names in accordance with (a) or (b) as indicated | Credits | Non-Credits | Alberta | Source Well | W.O.R. | P.F. | | | | | | |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | | | | | | | |
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| | | | - | | 1 | ' | | | | | | |
| Totals | | | | | | | | | | | | |
| | | 1 | 1 | 1 | | | | | | | | |
| Water Disposition—Bbls. Grand Total Receipts (column Opening Inventory | 1+2+3+ | -4) | | | — | | | | | | | |
| Adjustments (specify)SUB-TOTAL | | | | | | | | | | | | |
| Deduct: Closing Inventory Other Disposition Total Water Inje | | | | | | | | | | | | |
| TOTAL WILLIAM INJI | | | | | | | | | | | | |
| Injection Pressure (indicate if Injection Meter Reading at me | gravity feed onth end | 1) | | | | | | | | | | |
| | | | Signed | | | | | | | | | |

MR 219

Var II cone)
Nell or System
Libbs of First Limethon



